

Wild Horse
33.784 Island management
2whm plan
979

Wild Horse Island Management Plan



PLEASE RETURN

STATE DOCUMENTS

WILSON

Helena, MT



MONTANA STATE LIBRARY

S 333.784 F2wlm 1979 c.1

Wild Horse Island management plan /



3 0864 00059674 5

STATE OF MONTANA

DEPARTMENT OF FISH AND GAME



Helena, Montana
January 22, 1979

Dear Fellow Citizen:

Wild Horse Island is truly a magnificent and unique portion of our natural heritage and fits perfectly into our state park system. The generosity of the Bourke MacDonald family and the cooperation of many others made preservation of this beautiful island a reality. We can now pass this legacy to future generations with pride.

This plan will give you a brief glance into the history of the island, the background of the state purchase/lease, a look at the management problems and the decisions which are needed to properly manage the island as a state park.

The final chapter contains a concise discussion of specific tasks which will be accomplished during the next two fiscal years and names the person who has been designated the responsibility for carrying out each one. The final chapter also contains the budget in manpower and funds needed to carry out the tasks.

I urge you to read all of the plan. By fully reading it, you can gain a better insight into the background, the problems, and the different strategies for solving them which were considered prior to adopting specific courses of action.

After reading the plan, I invite you to turn to the back of it and list your comments on the page specifically printed for that purpose. Cut out the page, fold and mail it to us in the attached envelope. It is already properly addressed. By your doing this, we can hopefully gain more insight into how to properly manage this wonderful resource for present and future generations.

Sincerely,

STATE DOCUMENTS COLLECTION

JUL 28 1994

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

RFW/t

Robert F. Wambach
State Fish and Game Director

PLEASE RETURN

FEB 16 1989

Table of Contents

CHAPTER I

History	1
State Purchase/Lease	4
Island Management as a State Park--Planning Task Force	6

CHAPTER II

Public Management Preferences	7
The Questionnaire	7
Sample Selection	8
Response Rate	8
Social Demographic Characteristics	10
Use Levels	10
Public Preferences	13
Summary	16

CHAPTER III

Management Options	17
Public Use and Development	17
Public Use Regulation and Law Enforcement	27
Wildlife and Vegetation	30
Management--Financing	39

THE STATE OF TEXAS

County of _____

Know all men by these presents, that _____ of the County of _____ State of Texas, for and in consideration of the sum of _____ Dollars, to _____ of them in hand paid by the said _____ the receipt of which is hereby acknowledged, have granted, sold and conveyed, and by these presents do grant, sell and convey unto the said _____ of the County of _____ State of Texas, all that certain _____

TO HAVE AND TO HOLD unto the said _____ heirs and assigns forever.

And the said _____ do hereby certify that the within and foregoing is the true and correct copy of the original of the same as the same appears from the records of the County of _____ State of Texas.

Given under my hand and seal of office this _____ day of _____ A.D. 19____.

County Clerk

CHAPTER IV

Action Plan	42
General Park Administration	45
Public Use Regulations and Enforcement	48
Wildlife and Vegetation	50
Public Transportation	53
Public Use Facilities Design and Construction	55

APPENDIX

A	Map of Lot Owners' Holdings	59
B	House Bill 836, 45th Legislative Session	60
C	Proposed 7-Parcel Acquisition Map	61
D	Legal and Administrative Definitions of State Parks	62
E	Management Planning Task Force	64
F	Questionnaire	65
G	Questionnaire Distribution List	66
H	Social Demographic Characteristics of Public Preference Sample	67
I	Preferences by Population	70
J	Public Use Regulations (4/17/78)	74
K	Public Use Regulations (11/28/78)	75
L	Parks Funding Sources	76



CHAPTER 1

HISTORY

Wild Horse Island is surrounded by the largest body of fresh water in the West: Flathead Lake. The lake lies in the northern portion of a glaciated valley approximately 40 miles southwest of Glacier National Park. It is approximately 20 air miles south of Kalispell and about 10 air miles north of Polson, the county seat of Lake County.

The waters surrounding the island are contained by a lake bed that was scooped out by the Flathead Glacier during the Wisconsin Period of glaciation. The island lies approximately one-half mile from the west shore of the lake. The Swan Mountain Range lies to the north and the Mission Range to the east.

Distinctive gray-blue glacial waters surround Wild Horse Island and provide habitat for native Dolly Varden, cutthroat trout, mountain and pygmy whitefish, in addition to various introduced species of fishes, including the kokanee, largemouth bass, rainbow, brook and lake trout.

The island has been a historic landmark in the Flathead Valley since the days when Indian activities on the island gave it a name. There are many accounts of events which have taken place on the island; however, many of them vary drastically which makes accurate historical research difficult at best.



In the 1940s elderly Flathead Indians told their story. Long before white men ever entered the valley, the Flatheads were having problems with the Blackfeet who would cross over the mountains in the area that is now Glacier National Park, to take Flathead Indian horses. In an attempt to protect their valuable steeds, the Flatheads finally resorted to using the island near the west shore as a stashing grounds. They would swim their horses to the island when threatened by Blackfeet raiders and attempt to round them up after the threat

EXERCISES

EXERCISE 1

The first part of the exercise is a short story. Read it carefully and answer the questions that follow. The second part is a list of words and phrases. Write down the meaning of each one in your own words. The third part is a list of sentences. Write down the meaning of each one in your own words. The fourth part is a list of questions. Write down the answer to each one in your own words. The fifth part is a list of paragraphs. Write down the main idea of each one in your own words. The sixth part is a list of paragraphs. Write down the main idea of each one in your own words. The seventh part is a list of paragraphs. Write down the main idea of each one in your own words. The eighth part is a list of paragraphs. Write down the main idea of each one in your own words. The ninth part is a list of paragraphs. Write down the main idea of each one in your own words. The tenth part is a list of paragraphs. Write down the main idea of each one in your own words.

The second part of the exercise is a list of words and phrases. Write down the meaning of each one in your own words. The third part is a list of sentences. Write down the meaning of each one in your own words. The fourth part is a list of questions. Write down the answer to each one in your own words. The fifth part is a list of paragraphs. Write down the main idea of each one in your own words. The sixth part is a list of paragraphs. Write down the main idea of each one in your own words. The seventh part is a list of paragraphs. Write down the main idea of each one in your own words. The eighth part is a list of paragraphs. Write down the main idea of each one in your own words. The ninth part is a list of paragraphs. Write down the main idea of each one in your own words. The tenth part is a list of paragraphs. Write down the main idea of each one in your own words.

subsided. However, the roundup was not easy due to the size of the island and its numerous nooks and crannies. The horses that could not be retrieved became wild, thus the island became known as Wild Horse Island.

From an account by Isaac Stevens in 1855, a large band of horses which belonged to the Pend D'Oreille Indians were placed on the island. The account states that a man had lost horses to the Blackfeet and, in retaliation, he took a greater number of horses from the Blackfeet and put them on the island. Thus, when white men ventured into the area and saw the horses, they dubbed the island Wild Horse Island.

Congress authorized a survey of reservation lands in 1904 which resulted in the establishment of land allotments for Indians. Wild Horse Island was (and still is) within the boundaries of the Flathead Reservation. However, an act of Congress authorized sale of the island into private ownership. As a result of this congressional action "villa sites" were established along the shores of Wild Horse Island during the five to six years that followed the congressional act.

In 1910, homestead lands were offered. In his book Wild Horse Island, Edward B. McCurdy described one of the first homesteaders who tried his luck on the island. Herman Schnitzmeyer, in 1914, gave in and moved to Polson to become a "perfectionist in his photography." Other homesteaders included a cattleman who ran 100 head of stock on the island and a dairy farming family that delivered the mail between the island and Dayton by boat.

After homesteaders packed up and moved on, the federal government disposed of the properties on Wild Horse Island at a surplus land auction on July 29, 1915.

Over half the island's 890 lots were purchased by Colonel Almond A. White who managed the island as recreational property. White paid \$15 apiece for most of the lots, but a few went for \$50.

White, a Minnesota native, intended to establish a boys' school, a large hotel and some sort of a power plant on the island. A well-known land developer and speculator, White purportedly gave free rides from Glacier National Park to the island in attempts to make sales. Due to poor response on the part of the tourists lured to the island, sales rarely materialized. Debts forced his property to go to auction to pay delinquent taxes.

The next major actor in the history of Wild Horse Island was a native New Yorker, Reverend Robert Edington, who had relocated in Dayton, Montana. Edington left his mark as the builder of the Hiawatha Lodge, the dude ranch on the east side of the island. The dude ranch, which began in 1931, catered to wealthy eastern tourists who were free to roam the entire island. The MacDonald family now owns the remnants of the Hiawatha.

Lewis Penwell of Helena bought the island properties in 1940. According to a newspaper account published shortly after the purchase, his plans called for the erection of ranch buildings on the south side for breeding and training saddle horses. He continued to operate Hiawatha as a dude ranch after

completely renovating it and adding a 10 x 70-foot dock. He also maintained a boat with a 150-HP motor so tourists could cruise the lake at 35 miles per hour or water-ski if they desired.

In order to entice more visitation, Penwell established a game and bird preserve. In 1940, he petitioned the Montana Fish and Game Commission for permission to stock deer, elk, mountain sheep, antelope and game birds. Native deer and "more blue grouse than in any other locality of similar size in the state" were already inhabiting the island according to a newspaper account at the time. According to another newspaper report, the first shipment of wild turkeys were planted on the island during December of 1940 and "all the newly acquired game seemed to be thriving." That included antelope, deer and game birds. Penwell planned to obtain additional whitetail and mule deer for the island from the Moiese National Bison Range during that period also.

Sometime between 1941 and 1943 (depending upon the source), Dr. J. C. Burnett purchased all the island properties except for one plot which belonged to the University of Montana's Natural Science Department. One of his first priorities was to buy the University of Montana's parcel of land. In 1945, the Montana legislature authorized an exchange of land whereby the university would receive land on the mainland in lieu of its Wild Horse Island property.

Dr. Burnett reportedly developed a fine line of horses on the island from Arabian and Thoroughbred stock. Much of the wildlife and the majority of the horses famished as a combined result of overgrazing and a severe winter in 1955. One report stated that

nearly all of the horses perished, while another stated that two horses and a mule survived. And still another mentioned that, after Burnett's death in 1959, three horses, a mule, and other animals went up for sale along with the island.

The next transfer of the island to Bourke MacDonald in 1961 was embroiled in many heated controversies. The Nature Conservancy and the University of Montana competed with MacDonald for purchase of the island; however, Mr. MacDonald was successful in acquiring the complete island.

MacDonald, deeply concerned with protecting the island's wildlife, worked closely with the Department of Fish and Game to encourage the public to visit the island to photograph wildlife. He imposed stipulations banning dogs, smoking, building campfires and hunting. Shortly after he purchased the island, MacDonald announced plans for development which included selling lots on the south and west shores. These areas are protected from harsh north winds and offer a more feasible location for boat docking than the rockier north shore.

In keeping with his desire to maintain the island in as near natural condition as possible, restrictive covenants were established for the lots. Originally, MacDonald planned to sell 166 lots and to add developments at the east and north shores for public access. However, only 47 circular lots having the surface area of either an acre or a half-acre were sold. In addition, the MacDonald family reserved ten lots. The reasoning for the circular layout was that areas outside the lots could serve as a buffer zone. To protect the shoreline, the lots were located



authority to spend up to \$2,000,000 in federal or private revenue for the purchase (see Appendix B).

On October 7, 1977, Governor Judge petitioned Secretary of the Interior Cecil Andrus to purchase the entire island from the contingency reserve account of the Land and Water Conservation Fund. This is a special portion of the fund set aside for emergency or demonstration projects and administered by Secretary of the Department of Interior Cecil Andrus. This request was denied.

Cost sharing the entire donation with the Land and Water Conservation Fund allocation to Montana in any one year would severely deplete the capability for other state, city, and county outdoor recreation projects to be funded. Therefore, The Nature Conservancy, the MacDonald family, and the Department of Fish and Game agreed to a phased purchase plan for the island. The basic points of the plan are:

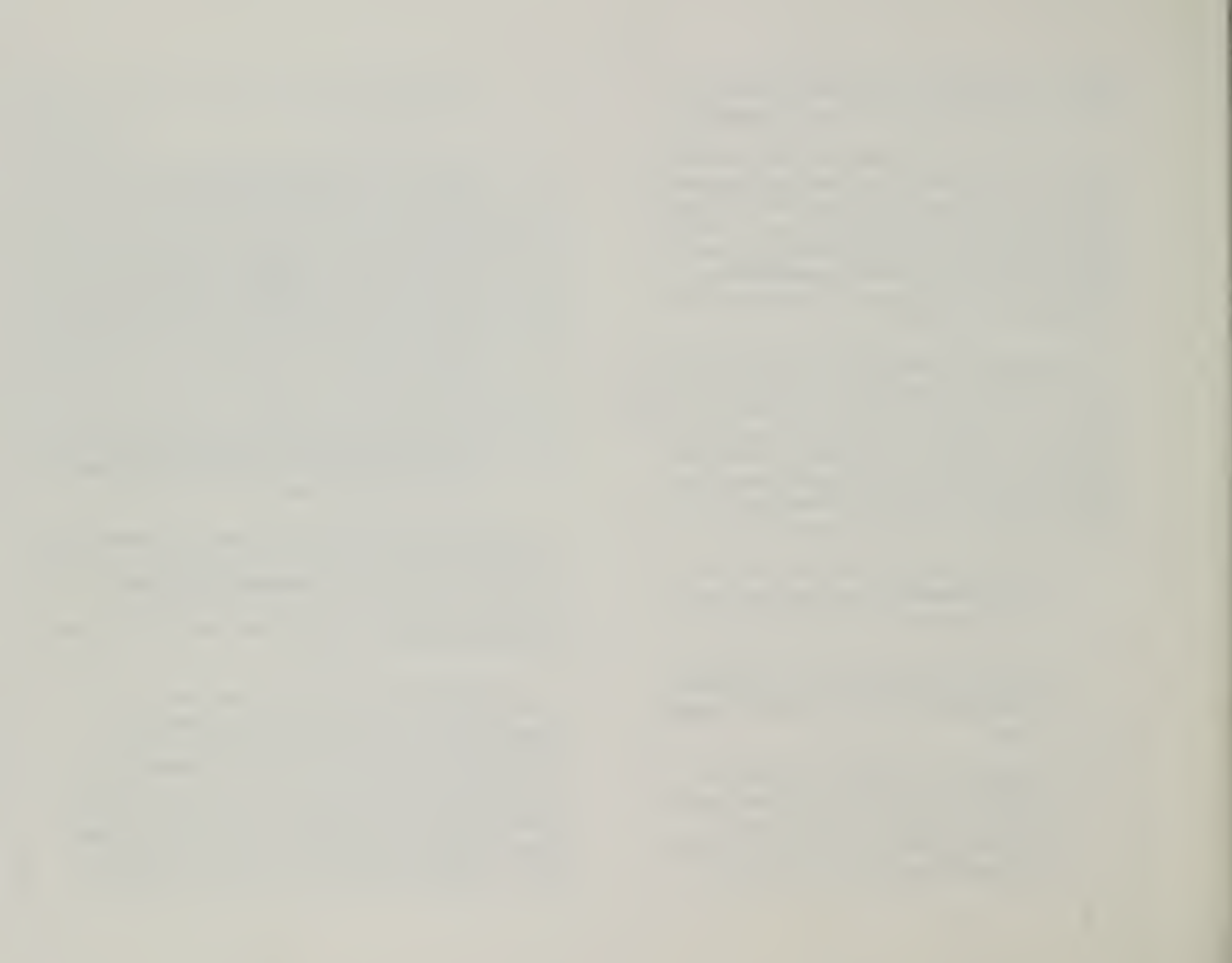
1. For these purposes the island was divided into seven parcels of approximate equal value (see Appendix C).
2. The total cost to the state for purchase of the entire island will be \$1,750,000 which is one-half of its February, 1977, appraised value.
3. The state will consider purchase of the parcels one at a time in a predetermined order of conveyance. Each parcel is anticipated to be cost shared by the Land and Water Conservation Fund which is

annually allocated to states by Congress on October 1.

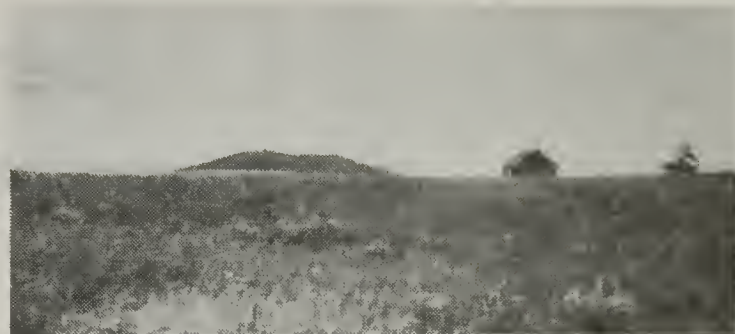
4. By law the Fish and Game Commission must approve all the land transactions.
5. Any appreciation in value of the island would also be donated to the state. If any value remains after the island is acquired, the state, at its discretion, can use this authority for cost sharing Land and Water Conservation Fund money for recreation area acquisition or development.
6. Until the entire purchase was consummated, the Department of Fish and Game would receive a lease, free of charge, for the portion of the island not owned.

In December, 1977, the Fish and Game Commission approved acquisition of the first parcel of the island. The actual transaction was consummated by the state in early 1978, and the lease for the remainder of the island was approved by the Fish and Game Commission at their February 22, 1978, meeting.

On July 10, 1978, Governor Judge again petitioned Secretary Andrus to purchase the remainder of the island from the contingency reserve account of the Land and Water Conservation Fund. On September 28, 1978, the governor's office was officially notified that Secretary Andrus had approved a contingency reserve project sufficient to purchase the second parcel of the island. This transaction was completed in December, 1978. The third parcel is anticipated to be purchased



in the spring of 1979 using a portion of Montana's fiscal year 1979 Land and Water Conservation Fund allocation. The remaining parcels are anticipated to be purchased upon the annual receipt of Land and Water Conservation Fund allocations.



ISLAND MANAGEMENT AS A STATE PARK

PLANNING TASK FORCE

Wild Horse Island was acquired under authority granted by the state legislature (RCM 62-301 and 62-304) which enables the Department of Fish and Game to conserve and make available the scenic, cultural, scientific and recreational resources of Montana. The area will be managed as a state park as defined in the Administrative Rules of Montana (see Appendix D). A state park is therein defined as an area providing a high quality recreation opportunity distinctive and suitable enough to attract people on a state, regional or national basis. As a state park, development and management is to be accomplished in a precise and sensitive manner with careful regard for all the natural features of the park. But what precise steps and actions can or should be taken commensurate with the objectives set forth in the law and the administrative rules?

In order to assure public participation in the management planning process, Fish and Game

Department Director Robert Wambach asked several groups to assist the department and commission by serving on a planning task force to make recommendations for the island's future management. Response was very positive with eleven out of twelve invited accepting (see Appendix E). The group's responsibility was to make management recommendations to the department. Since Wild Horse Island is within the state park system, the Parks Division was given the lead for formulation of the plan. The Fish and Game Commission will review the final plan in the spring or early summer of 1979, after further public review has been accomplished.

During the meetings of the planning task force, several problem areas were identified. The task force's recommendations have been of enormous aid in the formation of the problem identification and alternative solution option sections discussed in Chapter III.

1. Introduction

The purpose of this study is to investigate the effects of the proposed system on the performance of the participants.

The study was conducted in a laboratory setting with a sample of 20 participants.

The participants were randomly assigned to two groups: the control group and the experimental group.

The control group received the standard training, while the experimental group received the proposed system.

The results of the study showed that the proposed system had a significant positive effect on the performance of the participants.

The experimental group performed significantly better than the control group in all measures.

The findings of this study suggest that the proposed system is an effective training tool.

Further research is needed to investigate the long-term effects of the proposed system.

The study was limited by the small sample size and the laboratory setting.

Despite these limitations, the results of the study are promising and warrant further investigation.

The study was funded by the National Science Foundation.

The authors would like to thank the participants for their contribution to the study.

The authors would also like to thank the reviewers for their helpful comments.

The authors declare that they have no conflict of interest.

The authors declare that they have no financial or personal relationships that could have influenced the results of the study.

with a range of alternatives which would cover the entire spectrum of recreational possibilities.

The third and final phase of the questionnaire dealt with social demographic characteristics. It included questions 9 through 15.

Once the specific questions on the poll were developed, a format was selected for the technical make-up of the questionnaire. The objective was to utilize a format as simple and concise as possible. Accordingly, a postcard format was chosen whereby the respondent retained the half of the questionnaire with instructions on it and mailed the other half, with the actual questionnaire and postage-paid return address on it, to the research team.

It should be mentioned that the questionnaire respondents were informed both in the instructions section and on the questionnaire that their answers would be kept strictly confidential. The research team had no way of knowing who responded.

Sample Selection

The next step was to select populations of individuals to be polled and a random sample of the populations chosen was then selected. Therefore, 250 residents in each of four locations--Billings, the Flathead Lake area, Kalispell, and Missoula--were randomly selected from the most recent telephone directories for each of these locales. Although distant from Wild Horse Island, Billings was included because it was felt that, since Wild Horse Island was a state park, a segment of the eastern Montana population should be sampled.

A fifth group included in the sample was organizations. The research team contacted five organizations identified with the Wild Horse Island Management Planning Committee for their membership lists. From the four groups that complied with the request, an additional 250 names were randomly selected to be polled. (A breakdown of the actual distribution list can be found in Appendix G.)

In addition, all private property owners on Wild Horse Island were sent a copy of the questionnaire. To complete the list of those polled, a final group involved those individuals launching boats at Big Arm State Recreation Area, one of the closest launching ramps to the island. Under an agreement between the Department of Fish and Game and the research team, Barb and Jim Lathrop, the caretakers at Big Arm, distributed 325 questionnaires to individuals launching their watercrafts at Big Arm. Part of those polled under this heading actually received their questionnaires on the island, as Will Bucklin, the Fish and Game Department summer resident maintenance worker on the island, also distributed some of the questionnaires.

Response Rate

1300 questionnaires were mailed from Missoula on July 26, 1978. Although the cutoff date for return of the questionnaires was September 15, 1978, the bulk of the returned questionnaires arrived within the first three weeks of August (Table 1). A total of 521 usable questionnaires were returned.

It should be noted that the overall total response rate is 33.3% (Table 1). However, nearly 50% of



those individuals in the organizations population responded and 39% from the boat launchers/owners population. For the four telephone directory random sample populations, the response rate ranged from 20.9% from Billings to 31.5% from Missoula. The low figure for Billings had been anticipated by the authors due to the distance between Wild Horse Island and Billings. The combined response rate for the four locations was 27%.

In conclusion, it should be pointed out that the total response rate of 33.3% for all samples combined and the 27% total response rate for the four locations was an acceptable rate of return for this type of questionnaire. For many individuals, especially those in the general population, management of the island is not a salient issue--a factor which adversely affects return rates.

Table 1. Wild Horse Island questionnaire distribution and response rates.

	Billings	Flathead Lake	Kalispell	Missoula	Organizations	Boat Launchers/ Owners	Total
Number mailed	250.0	250.0	250.0	250.0	250.0	375.0	1,625.0
Number return-to-sender	11.0	28.0	10.0	9.0	3.0	1.0	62.0
Percent return-to-sender	4.4	11.2	4.0	3.6	1.2	.3	3.8
Net sample	239.0	222.0	240.0	241.0	247.0	374.0	1,563.0
Number responses	50.0	64.0	64.0	76.0	121.0	146.0	521.0
Percent responses	20.9	28.8	26.7	31.5	49.0	39.0	33.3



Social Demographic Characteristics

The remainder of this chapter deals with how the general public responded to the Wild Horse Island questionnaire. First, the socio-demographic characteristics of the respondents are described (tabular data are contained in Appendix H).

Respondents were predominantly male. The proportion of males varied from 84% in Missoula to about 65% for boat launchers/owners.

Ages of respondents were diversified. Kalispell and Missoula tended to have younger individuals. For instance, roughly 30% of the respondents from Missoula and Kalispell were between 20-29 years old while only 15% of the respondents from the other samples fell into this age category. In contrast, Missoula and Kalispell tended to have lower percentages of respondents in older age categories, while the Billings and Flathead Lake populations were older.

In terms of income, questionnaire results showed that 57% of the respondents fell within the "middle class" income bracket, grossing between \$10,000 and \$25,000 annually. Another 20% earned less than \$10,000 while 22% earned over \$25,000.

A final social demographic characteristic involved the occupation of respondents. The largest occupation represented was from the professional and technical worker category, registering 28%. The second largest group was retired individuals at 20%, and 17% from the managers and administrators categories.

Use Levels

This section deals with use levels information questions 1 through 7 of the questionnaire. 82½% of the respondents stated that they did not own property on Flathead Lake. The Flathead Lake and organizations samples showed the highest rate of land ownership (Table 2). Of the individuals who responded that they did own property, 48% were from the boat launchers/owners sample, 22% from organizations, and 18% from the Flathead Lake area. In contrast, only 13% from the entire Billings, Kalispell and Missoula areas owned property on the lake.

Questionnaire results showed that 65% of the respondents did not own a boat used primarily on Flathead Lake (Table 3). However, the proportions varied greatly depending in part on the distance from Flathead Lake.

Boat owning respondents were asked how frequently they used the island. Of the individuals responding that they did circle Wild Horse Island with their boats, 16% circled the island every time they were on Flathead Lake, 28% circled most of the time, 48% occasionally, and 8% never.

Respondents were also asked if they had ever actually visited the island. About 44% of the respondents stated they had visited the island some time in the past (Table 4). Most of the people were from the boat launchers/owners, organizations, and Flathead Lake samples.

The next question asked visitors the reasons for their visit to Wild Horse Island. The primary reason



for visiting the island was to observe wildlife (70%), followed by hiking (44%), photography (37%), fishing (28%), swimming (21%), visiting friends living on the island (13%), and owning property on the island (10%).¹

In review of this section of the data:

10% owned property on Wild Horse Island
 17% owned property on Flathead Lake
 35% owned boats used primarily on Flathead Lake
 44% have actually been on Wild Horse Island.



Table 2. Respondents who own property on Flathead Lake by population, in percent.

	Billings	Flathead Lake	Kalispell	Missoula	Organizations	Boat Launchers/ Owners	Total
	(n=49)	(n=61)	(n=63)	(n=76)	(n=121)	(n=145)	(n=515)
Own Property							
YES	0.0	26.2	8.0	7.9	16.5	29.7	17.5
NO	100.0	73.8	92.0	92.1	83.5	70.3	82.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹Since respondents could give more than one reason for their visit, the percentages add up to more than 100%.



Public Preferences

The final section of this chapter examines the preferences of the respondents for future management options. Specifically, it deals with question 8 of the Wild Horse Island questionnaire. Before examining the actual data, it should be pointed out that responses to this question were not mutually exclusive. In other words, an individual could respond to the "leave as is" option with the thought of that being the primary management objection, but also respond to the "developed hiking trails" option. The total percentages for each option add up to more than 100% since the respondents could answer as many options as they felt applied. Respondents were asked their opinions of four areas of management direction: transportation to and on the island; facility development; regulations; and wildlife management.

In terms of future management options for transportation services on Wild Horse Island, 53% of all respondents favored the "leave as is" option (see Table 5). The second highest option was the one favoring the construction of "developed hiking trail" with a 37% response rate. There was also strong interest expressed for a "public boat ferry" to the island, with a 19% response rate. The transportation option with the lowest level of support was the "off-road vehicle use" option at 1%.

There were distinctive differences of perception of these options depending on whether the respondent had actually been on the island. Whereas 61% of the island users selected the "leave as is" option, 47% of nonusers favored it. Another example involved preference for a public boat ferry.

Table 5. Transportation preferences by use of island, in percent.^a

Option	User	Nonuser	Total
	(n=224)	(n=282)	(n=506)
LEAVE AS IS	61.2	46.8	53.2
PUBLIC FERRY	9.4	27.0	19.2
PRIVATE FERRY	7.6	3.5	8.1
BRIDGE	1.3	5.7	3.8
ROADS	0.4	2.5	1.6
OFF-ROAD VEHICLES	0.0	1.8	1.0
TRAILS	33.0	40.8	37.4
HELICOPTER	4.0	2.8	3.4

^aTotals add to more than 100% because respondents could check more than one option.

27% of the nonusers favored this option as opposed to only 9% of people who have been on the island.

The proportion of respondents favoring the "leave as is" option for facility development was 40% (see Table 6). The highest preference for facility development was for public toilet at 48%. There was high preference voiced for picnic area with a 37% response rate. The discrepancies between users and nonusers of Wild Horse Island were few in this category, as compared to transportation options (see Table 6).

In regard to visitor regulation options for Wild Horse Island State Park, 35% of the respondents checked "leave as is" (Table 7). The strongest preferences were expressed on the hunting issue: 47% were opposed and only about 18% were in favor. Four percent advocated closing the island to all visitors.

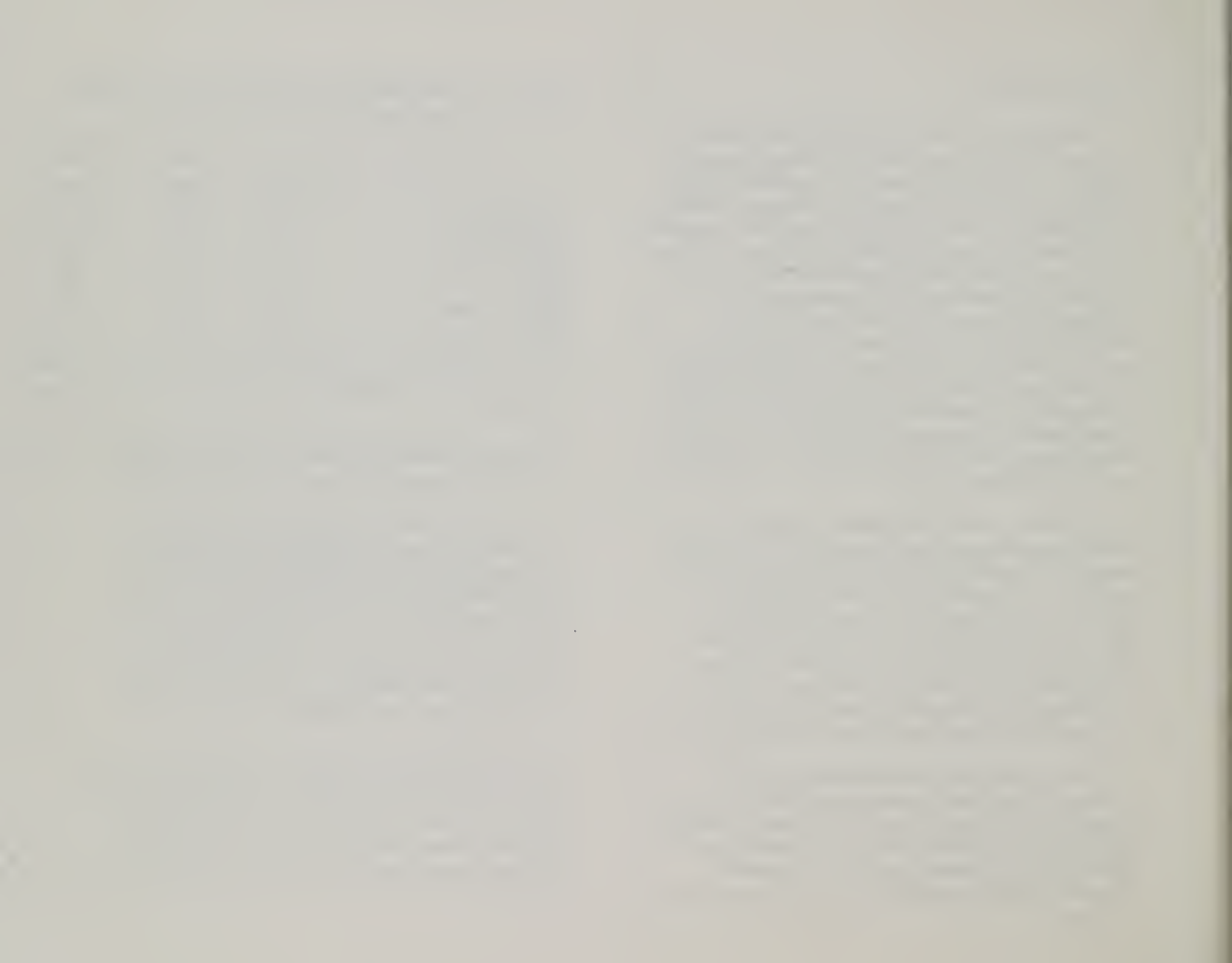


Table 6. Facility preferences by use of island, in percent. ^a

Option	User (n=223)	Nonuser (n=282)	Total (n=505)
LEAVE AS IS	41.7	39.4	40.4
PUBLIC TOILET	46.6	49.6	48.3
PICNIC AREA	37.7	36.9	37.2
PUBLIC BEACH	22.9	18.1	20.2
PUBLIC DOCK	28.7	18.4	23.0
VISITOR CENTER	7.2	13.8	10.9
OBSERVATION TOWER	8.1	10.6	9.5
BOY SCOUT CAMP	4.9	7.8	6.5
CAMPGROUND	11.2	17.4	14.7

^a Totals add to more than 100% because respondents could check more than one option.

Also registering high preference under the regulation options were "allow overnight camping" (22%) and "allow open fires" (16%). As with the facility development options, there were even fewer significant differences of opinion between users and nonusers except over the question of overnight camping. For that option, 27% of the respondents who had never been on the island favored it while only 16% of those who had visited Wild Horse Island did (see Table 7).

A final area of future management options involved the wildlife of Wild Horse Island. For this category, 51% of the respondents checked the "leave as is" option. ² The second highest option was 26% favoring the stocking

² It should be pointed out that the possibility of some confusion about the "leave as is" option under the wildlife management category may have existed. This may have resulted due to the fact that historically the owners of Wild Horse Island have let nature run its course in regard to the bighorn sheep herd, whereas last winter (1978) the Montana Department of Fish and Game made some hay drops onto the island by helicopter.

of other game, followed closely by 24% wanting to "decrease the bighorn herd." An additional 14% responded to the "other" option. In general, most of these individuals were in favor of transplanting the bighorn sheep excess population.

Table 7. Regulation preferences by use of island, in percent. ^a

Option	User (n=219)	Nonuser (n=273)	Total (n=492)
LEAVE AS IS	35.6	34.1	34.8
HUNTING	9.6	9.9	9.8
CAMPING	16.4	27.1	22.4
CAMPFIRES	13.7	18.3	16.3
PETS	4.6	6.2	5.5
NO HUNTING	47.5	45.8	46.5
CLOSE TO ALL	3.7	4.4	4.1

^a Totals add to more than 100% because respondents could check more than one option.

For the category of future wildlife management, differing viewpoints between those having visited the island and those not having done so widened once again. While 45% of those having used the island supported leaving the island as is, 56% of the nonusers held that viewpoint. Regarding the "increase the bighorn population" option, twice as many nonusers favored it as users. In direct contrast, 30% of the users favored the "decrease the bighorn population" option whereas 20% of the nonusers did (Table 8).

It appears that there are frequently different perspectives voiced about future management options for Wild Horse Island, dependent on whether an individual had ever actually been on the island or not. In general terms, those respondents who have not visited



Wild Horse Island appeared to be more "prodevelopment" oriented than the island's visitors.

Table 8. Wildlife preferences by use of island, in percent.^a

Option	User	Nonuser	Total
	n=221	n=240	n=501
LEAVE AS IS	44.8	56.1	51.1
INCREASE SHEEP HERD	4.1	5.6	6.6
DECREASE SHEEP HERD	29.9	19.6	24.2
REMOVE SHEEP HERD	1.4	1.5	1.6
STOCK OTHER GAME	30.3	23.2	26.3
OTHER RESPONSE	15.5	11.5	13.6

^aTotals add to more than 100% because respondents could check more than one option.

However, use was not the only factor influencing one's future management preferences. There is little doubt that the location of the individual respondent's hometown affected management preferences. For the transportation facilities options, 60% of the respondents from the organizations and boat launchers/owners samples expressed the desire to leave the island as is while 40% from Billings and 42% from Kalispell held this viewpoint. On the issue of instituting a public boat ferry to the island, 27% of the Billings respondents were in favor compared to 12% of the boat launchers/owners. Similar ratios were found on the question of contracting for a boat ferry to the island. The Billings and Missoula samples had 13% in favor of this option compared to only 5% from the organizations and boat launchers/owners populations. As far as internal transportation facilities are concerned, responses favoring construction of developed hiking trails varied from 30% to 47%. (See Appendix I, Table 1.)

There were similar discrepancies among sample location on the topic of facility development. Whereas 62% of the Kalispell respondents favored public toilets on the island, 40% did so from Billings. Regarding a picnic area, Billings had 24% favoring it but the other five samples registered a 40% response rate in favor of it. The Billings residents were also less in favor of a public dock (11%) than all the other populations. Yet 11% of those from Billings would like to see a Boy Scout-type camp constructed on the island compared to only 2% from the boat launchers/owners. (See Appendix I, Table 2.)

There was nearly a 2 to 1 difference of sentiment between Billings (49%) and the Kalispell (25%) and organizations (29%) samples about the "leave as is" option for regulations. A large difference was also found between the organizations sample (21%) compared to the Billings (4%), boat launchers/owners (5%), and Kalispell samples (7%) on the issue of allowing hunting on the island. (See Appendix I, Table 3.)

The evidence tended to show that discrepancies among sample groups varied with the option. On the issue of increasing the size of the bighorn sheep herd, Kalispell and Billings both had 11% response rates compared to 3% for Flathead Lake and 5% for the boat launchers/owners populations. For the "decrease bighorn herd" size option, a mere 2% of the Billings respondents favored this compared to as high as 36% from Kalispell residents and 34% from organization members (see Appendix I, Table 4).

Summary

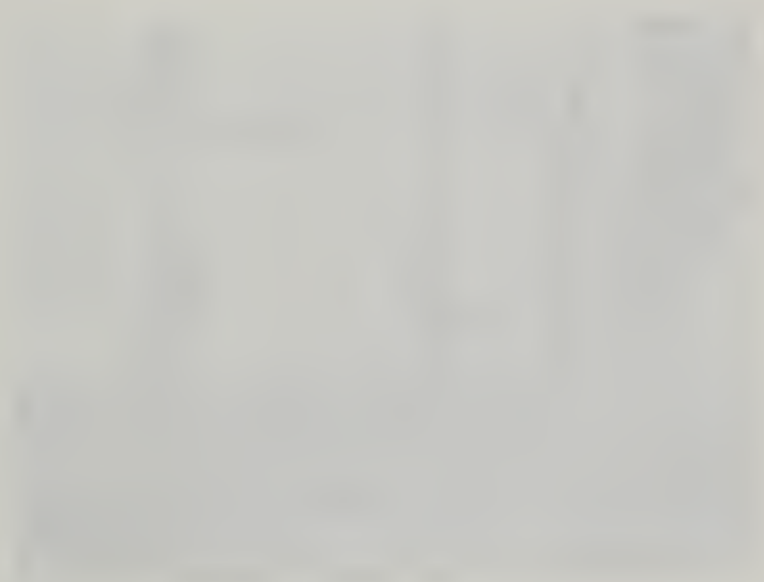
Respondents to the questionnaire cited "observing wildlife" as the primary reason for visiting Wild Horse Island. Since wildlife observation appears to be a main component of the island's recreational experience, management decisions should be influenced by this knowledge.

One of the strongest options preferred by the respondents was the "leave as is" choice. This option was stressed in all four categories: transportation, facility development, regulations and wildlife management. However, there was also a degree of preference for some kind of access to the island as well as interest in "developed hiking trail," "public toilet," and "picnic area."

In general, the respondents tended to prefer the present regulations in effect on the island during the summer of 1978. In particular, a strong antihunting sentiment was expressed. Some interest in the idea of stocking the island with other game also existed.

Finally it was found that management preferences for Wild Horse Island varied with the location of the respondent and if the respondent had ever visited the island. This finding brings up an important issue--which group of respondents does the manager listen to or manage for?





THE
LIBRARY
OF THE
UNIVERSITY OF
MICHIGAN
ANN ARBOR
MICHIGAN

THE
LIBRARY
OF THE
UNIVERSITY OF
MICHIGAN
ANN ARBOR
MICHIGAN

CHAPTER 3

MANAGEMENT OPTIONS

Public Use and Development

When the Department of Fish and Game assumed management of the island it became necessary to make several immediate management decisions concerning public use. At its initial meeting, the planning task force agreed with the department's proposed interim public use regulations which were very similar to those in effect under the MacDonald family management. The Fish and Game Commission at their April 27, 1978, meeting agreed with this rather conservative approach with one exception. The commission did not ban smoking on the island (see Appendix J).

At their November 28, 1978, meeting, the commission granted the department authority to use motorized vehicles for administrative purposes as well as for fire suppression. This action facilitated the sheep trapping/transplanting described later. At the same meeting the commission adopted public use regulations for calendar year 1979 or until changed under provisions of the Montana Administrative Procedure Act. The changes from the 1978 regulations included allowing the department administrative use of vehicles on the island, allowing commercial use of the island only with permission and reduced from 50 to 30 the size of group which must secure prior permission from the department to use the island (see Appendix K).

Other actions taken by the department during the past year include hiring a seasonal employee for the

summer to remove sections of old barbed wire fence, to post regulations and remove old signs and to generally police the island. He also assisted in the distribution of questionnaires as part of an overall recreation use and preference study financed by the department and conducted by the University of Montana School of Forestry (see preceding chapter for details).

Wild Horse Island could be managed in a wide variety of ways ranging from full development and utilization to a wildlife preserve. Through a wide variety of more subtle management techniques, public use can be either encouraged or discouraged--thus, the dilemma and challenge which lie before us.

Because terms such as "limited use" or "high levels of development" mean different things to different people, we have listed specific problems and opportunities and specific possible strategies for addressing them in this chapter. This chapter contains no commitment for action. This can be found in Chapter IV.

Please note that several alternatives could be chosen which could simultaneously be implemented to address the same problem. One should also note that the alternative action "take no action" is a viable alternative which may be chosen in some instances.

Each alternative marked with an asterisk (*) was chosen as a recommendation by the Wild Horse Island Planning Task Force.



Public Use and Development

A. Differing groups concerned with preservation and management of Wild Horse Island have different aspirations concerning its future.

B. People wish to use Wild Horse Island for recreation purposes.

Alternative Strategies

- a. Maintain as a state park and encourage overnight and day use.
 - b. Maintain as a state park but discourage overnight use.
 - c. Establish as a wildlife preserve and discourage all use possible which is not related to wildlife.
 - d. Establish as a research area and discourage all use possible.
 - *e. Maintain as state park and seek a reasonable inter-mix of recreational, wildlife and research use.
-

- a. Allow unrestricted use.
 - *b. Allow day use only.
 - c. Allow camping and day use with restrictions as to numbers of visitors and/or the types of activities, locations and seasons.
 - d. Restrict all recreation use possible.
-

*Planning Task Force recommendations

1871

1872

1873

1874

1875

1876

1877

1878

1879

1880

1881

1882

1883

3. Some visitors desire to camp on the island overnight.

* a. Prohibit camping.

b. Allow camping only in designated areas, with minimum facilities provided.

c. Allow unrestricted camping.

d. Provide full services campground.

e. Lease concession area for camping with strict controls.

4. Visitors may desire to build fires.

a. Prohibit all fires.

* b. Allow fires in commercially manufactured stoves only. Prohibit open fires.

c. Provide fireplaces or fire circles in designated locations.

d. Allow responsible fire utilization.

e. Provide group use bonfire area.

f. Prohibit fires during fire season as defined by state law.

g. Allow open fires on beach areas below high water line.

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

5. With public use, vandalism, including littering and defacement of natural features will occur.

* a. Adopt strong regulations prohibiting littering and destruction and defacement of natural features and/or facilities.

b. Require entrance and exit registration of all visitors.

c. Allow the gathering of certain natural objects or the disturbing of the soil to do so.

d. Allow disposal of specified waste and/or litter in designated areas or receptacles.

* e. Visitors pack out all garbage they bring in.

6. Individuals may desire to graze livestock on the island.

* a. Prohibit domestic animals from the island.

b. Allow grazing under a lease or registration system.

c. Allow grazing for transportation animals only.

7. Commercial interests may wish to utilize the island.

* a. Prohibit commercial use on the island.

b. Allow commercial concession use of selected areas for designated purposes. In lieu of government operation as listed in this plan.

c. Allow commercial concession use only if an acceptable level of income is realized by the state from the operation, as listed in this plan.

d. Lease the island to private enterprise for recreational purposes for the highest bid.



8. Organizations and other groups of people may wish to utilize the island.

- a. Allow unrestricted use.
 - b. Restrict group size.
 - *c. Restrict group use purposes and/or activities.
 - *d. Require prior approval for groups above a designated size to utilize the island and establish due process through which approval is given.
 - e. Prohibit group use.
-

9. Visitors may wish to hunt.

- a. Prohibit hunting.
 - b. Allow hunting in conformance to established seasons and quotas.
 - c. Establish the island as a separate special hunting district.
 - d. Allow hunting of nongame species.
 - e. Allow hunting of nongame species in designated areas or times.
 - f. Ask legislature to establish a special fee structure for hunting on the island.
 - g. Permit archery hunting only.
 - h. Permit hunting only under strictly controlled system.
-



10. Visitors may wish to smoke.

a. Prohibit smoking.

* b. Designate areas where smoking is allowed.

c. No restrictions on smoking.

D. What level of development will be provided?

* a. Install minimum facilities required to provide protection of the island and promote human health and safety.

b. Provide facilities for user convenience and comfort.

d. Provide highly developed facilities such as those found in most commercial campgrounds.

e. Take no action.

E. There is a problem as to location of the facilities provided.

a. Concentrate in single location.

* b. Place in minimum number of locations necessary for public health and safety.

c. Disperse widely over island.

d. Rest sites periodically.



F. There are many interpretations regarding what constitutes the minimum or other levels of development.

a. Boat docks:

1. None.
2. Administrative use only.
- *3. Courtesy dock for loading and unloading as necessary.
4. Courtesy dock with mooring slips.
5. Mooring buoys off shore.
6. Commercial marina.

b. Campground:

- *1. None.
2. Tent pads.
3. Tables.
4. Fireplaces or rings.
5. Group fire facility.
6. Cabins.
7. Concession - commercial type campground.
8. Tent pads and tents with location established and maintained by state on semi-permanent basis.

c. Day Use Area:

- *1. No facilities--use island at will.
2. Tables.
3. Fireplaces or rings.
4. Group fire facility.
5. Concession area

d. Sanitation--Human Waste:

1. Provide no facilities.
- *2. Sealed vault latrines as needed.
- *3. Portable latrines as needed.
4. Modern comfort station.



e. Solid Waste:

- * 1. Require visitors to pack out garbage.
- 2. Supply garbage cans and maintain by state.
- 3. Supply garbage cans and maintain by contract or concession.

f. Signs:

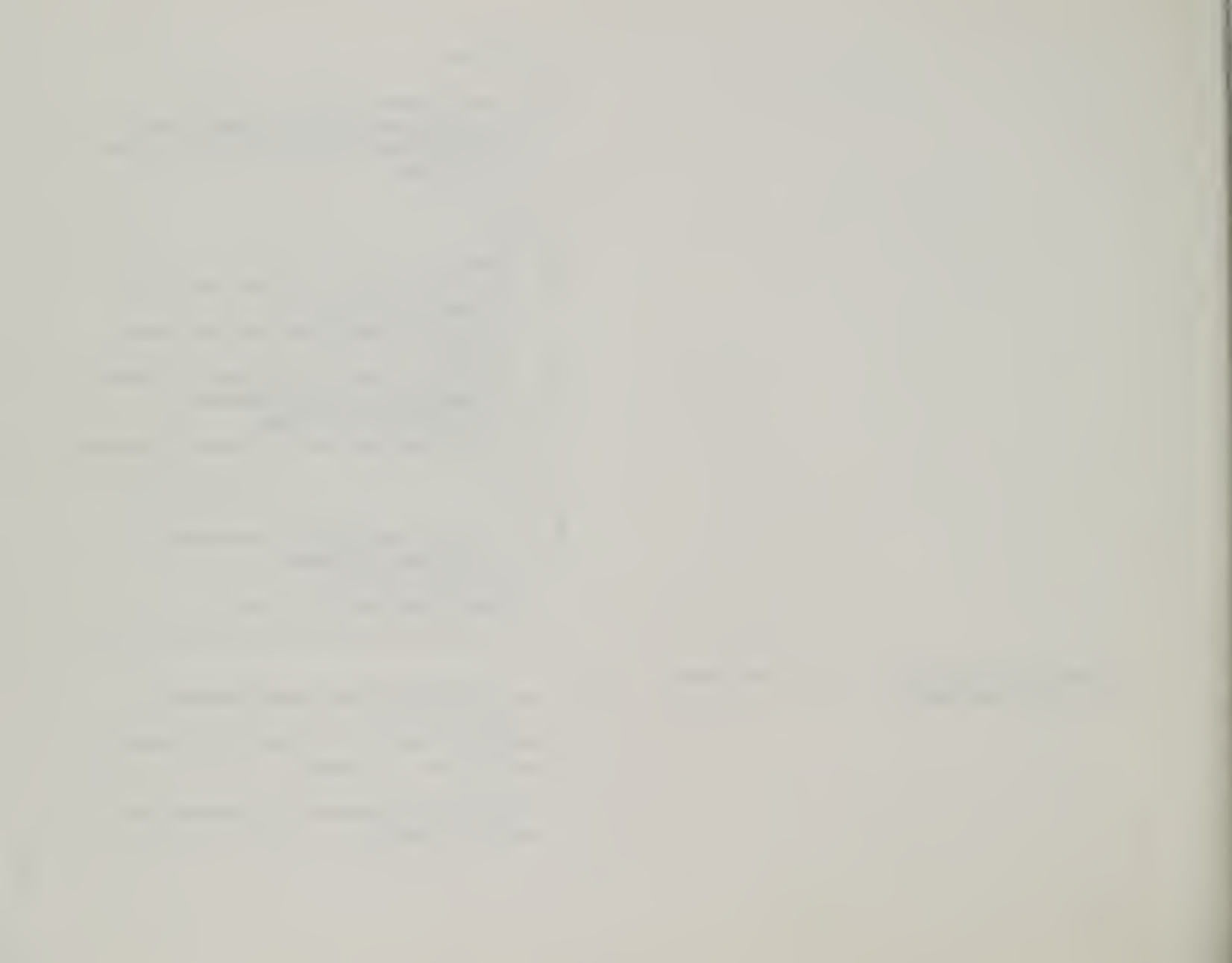
- 1. None.
- * 2. Minimal information regulation and credit on mainland and island.
- 3. Erect many signs on mainland advertising island.
- * 4. Provide information and regulation brochures as handouts at points of embarkation.
- * 5. Provide signs to lot owners.
- 6. Provide signs only on island--none on mainland.

g. Trails:

- * 1. Utilize existing trails and monitor use.
 - 2. Develop trails as needed.
 - 3. Sign existing trails.
 - 4. Improve existing trails as needed.
-

G. If facilities are provided, it must be determined who will provide them.

- * a. State of Montana will provide and maintain.
- b. State provide facilities, private sector operates under contract or concession.
- c. Private sector provides and operates under concession or contract.



H. A decision needs to be made concerning how much publicity Wild Horse Island will receive.

a. None.

*b. Routine state park literature.

c. Out-of-state advertising.

d. Provide signs on local through-highways.

e. Commercial advertising.

I. Public transportation to and from the island is a problem.

*a. Visitors provide their own transportation.

b. State provide limited scheduled transportation.

c. State provide seasonally frequently scheduled transportation.

d. Commercial transportation provided by concession or contract.

J. The value and extent of archaeological and other cultural remnants is unknown.

*a. Perform a general cultural resources inventory of the complete island.

b. Perform an inventory of only the primary impact areas.

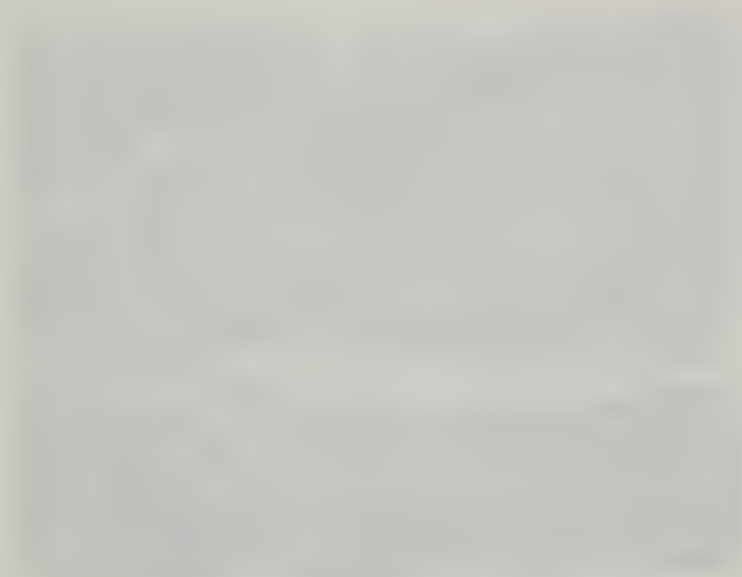
c. Take no action.



Public Use Regulation and Law Enforcement

During the interim period between purchase and acceptance of this management plan, the interim regulations have been enforced by Department of Fish and Game wardens. It is the intent of this section to clarify the options available for enforcement and where the responsibility should lie for that enforcement. Private lot owners have no special privileges and must conform to public use regulations while utilizing the public portion of the island.





1875

Public Use Regulation and Law Enforcement

A. A set of interim public use regulations have been adopted. These will expire on December 31, 1979.

B. After adoption of regulations, provisions for enforcement must be made.

Alternative Strategies

- a. Allow regular state parks regulations to govern the area.
 - b. Permanently adopt 1979 interim regulations.
 - c. Revise 1979 regulations to eliminate undue harrassment of users while maintaining those regulations which address problems unique to the area.
 - d. Revise the 1979 regulations to further limit activities.
 - *e. Keep current regulations until planning process is complete.
 - *f. Revise regulations to conform with the objectives set forth and accepted in the final management plan.
-
- *a. Department wardens patrol regularly.
 - b. One or more private lot owners be deputized or made ex officio wardens.
 - *c. All department personnel having consistent involvement with the island be trained and empowered as ex officio wardens.
 - *d. Provide a park manager with ex officio warden status.
 - e. Take no action.
-



C. Conflicts between private owners and recreationists could occur.

- * a. Provide and locate facilities to minimize conflicts.
 - b. Adopt a policy of providing enforcement assistance on a time available basis.
 - c. Adopt a policy of actively aiding landowners to alleviate conflicts.
 - * d. Educate and inform users of the existence and rights of private land holders.
 - e. Take no action.
-

D. Rapid effective communications from the island for enforcement or emergency purposes is difficult.

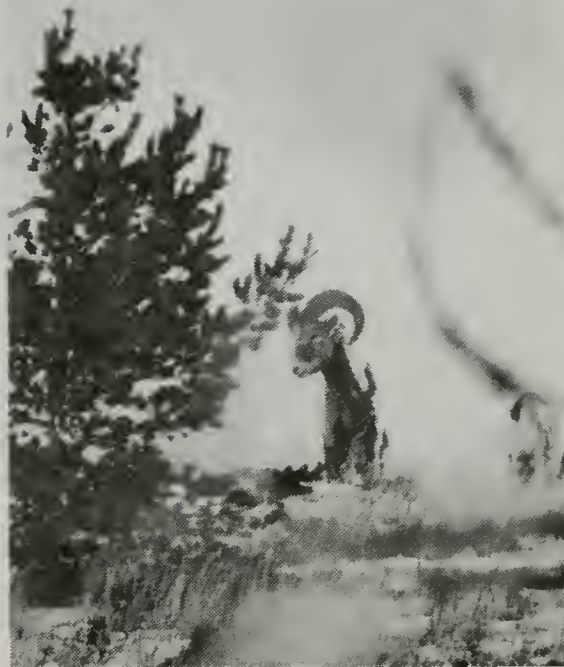
- a. Encourage formation of cooperative telephone service.
 - * b. Encourage lot owners to obtain citizen band radios.
 - * c. Install citizen band radios in department enforcement and administrative vehicles or facilities.
 - * d. Provide a full-time park manager on the island at least seasonally with adequate communications capabilities.
 - e. Take no action.
-

Wildlife and Vegetation

Although Wild Horse Island is primarily noted for its bighorn sheep, other species of game and a variety of nongame species occur there as well. The larger animals are not in balance with the island's ability to produce forage. The animals have caused severe deterioration of the forage on some portions of the park.

During the 1977-78 winter, approximately 60 bighorn sheep died on the island. Most of them were mature rams which died as a combined result of harsh winter weather, lack of sufficient winter range vegetation, and fatigue due to the rutting season. Several rather severe die-offs have occurred in the past. At least 152 sheep survived the 1977-78 winter, however, and the lamb crop numbered about 25, bringing the total island bighorn sheep population to about 180 animals. Wildlife experts believe this number exceeds the island's carrying capacity and if the number of sheep is not reduced, future severe, abnormal die-offs are a certainty.

Mule deer also inhabit the island and compete to some extent for food with the bighorn sheep. The deer population, though small now, may respond to a reduction in sheep numbers by population growth. If this happens, the objective of lowering the animal numbers to allow vegetation recovery could be thwarted. Therefore, both sheep and deer populations must be monitored and limited in some manner to maintain populations more compatible with their respective carrying capacities and to avoid large scale die-offs.



As an interim population control measure, the department implemented sheep trapping and transplanting during the fall of 1978 and early winter of 1979.

On January 8, 1979, the department successfully trapped 41 sheep. They were successfully transplanted on Fourteen Mile Creek in the Lolo National Forest. An additional 38 sheep were successfully trapped on January 17 and were moved to a holding area on the National Bison Range at Moiese the next day.

ORIGINAL ARTICLES

THE TREATMENT OF
TUBERCULOSIS

BY
DR. J. H. HARRIS

OF THE
UNIVERSITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

AND
OF THE
PASTORAL MEDICAL SOCIETY

OF THE
CITY OF CHICAGO

Wildlife and Vegetation

Although Wild Horse Island is primarily noted for its bighorn sheep, other species of game and a variety of nongame species occur there as well. The larger animals are not in balance with the island's ability to produce forage. The animals have caused severe deterioration of the forage on some portions of the park.

During the 1977-78 winter, approximately 60 bighorn sheep died on the island. Most of them were mature rams which died as a combined result of harsh winter weather, lack of sufficient winter range vegetation, and fatigue due to the rutting season. Several rather severe die-offs have occurred in the past. At least 152 sheep survived the 1977-78 winter, however, and the lamb crop numbered about 25, bringing the total island bighorn sheep population to about 180 animals. Wildlife experts believe this number exceeds the island's carrying capacity and if the number of sheep is not reduced, future severe, abnormal die-offs are a certainty.

Mule deer also inhabit the island and compete to some extent for food with the bighorn sheep. The deer population, though small now, may respond to a reduction in sheep numbers by population growth. If this happens, the objective of lowering the animal numbers to allow vegetation recovery could be thwarted. Therefore, both sheep and deer populations must be monitored and limited in some manner to maintain populations more compatible with their respective carrying capacities and to avoid large scale die-offs.



As an interim population control measure, the department implemented sheep trapping and transplanting during the fall of 1978 and early winter of 1979.

On January 8, 1979, the department successfully trapped 41 sheep. They were successfully transplanted on Fourteen Mile Creek in the Lolo National Forest. An additional 38 sheep were successfully trapped on January 17 and were moved to a holding area on the National Bison Range at Moiese the next day.



Through a special agreement between the Fish and Game Commission and the Washington State University Department of Veterinary Microbiology and Pathology, 8 of these animals were transported to the university. These animals will be used in a research project which will hopefully eradicate or control lungworm infections which plague most, if not all, bighorn sheep herds. The effectiveness of the treatment will be closely monitored. At the end of four months' treatment, the animals will be returned to Montana for release in an approved transplant site. The remaining 30 animals trapped on January 17 will be transplanted to an approved site pending clearance of necessary land management agency agreements.

On Saturday, January 20, an additional 20 sheep were successfully trapped and moved to the holding area on the National Bison Range at Moiese. There were a total of three mortalities in the trapping and transplanting operations, bringing the total removed to 102. This leaves approximately 78 sheep on the island. This number is considered close enough to the objective goal of 50-75 animals to remain within the park. No further trapping will be accomplished during the winter of 1979.

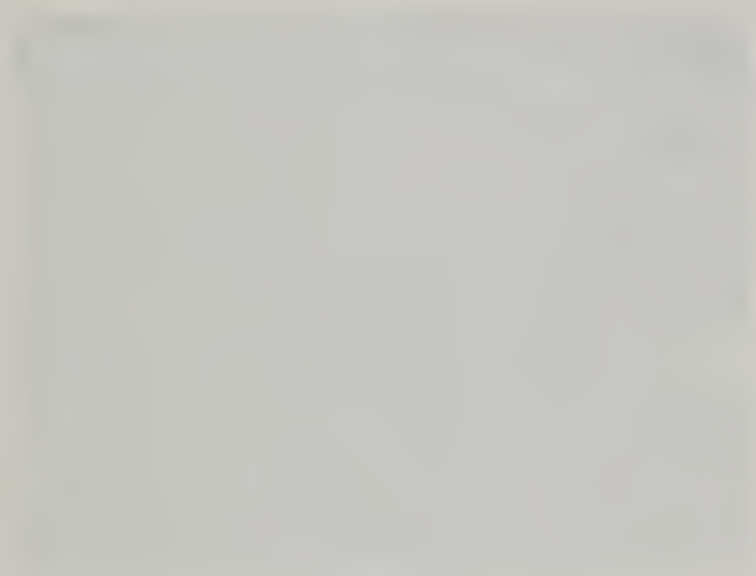
Wild Horse Island also provides a home to a wide variety of small nongame animals and birds including several species of song birds, golden and bald eagles, hawks, falcons, blue and ruffed grouse as well as many waterfowl species. Big Arm Bay occasionally freezes over which allows free interchange between the mainland and the island of some mammals such as coyotes. Although some coyotes have been killed on the island during the past few years, reliable reports of an



existing resident coyote population have been made. These animals need to be monitored to assess numbers and habitat needs.

One feral horse and one mule--remnants of the herds of past owners--also inhabit the island. Their ages have been estimated at over 30 years each.

The kinds and members of wildlife species present on the park at any one time are directly related to soil and vegetation conditions. Much of the island appears disturbed either from overgrazing, overbrowsing or from past cultivation, typified now by the reserve of introduced plant species and lack of shrub species. Alien or introduced species frequently dominate the site to the



2. The second part of the document focuses on the challenges faced by organizations in implementing effective internal controls. It highlights the complexity of modern business environments and the need for a robust framework of controls to manage risks. The text suggests that organizations should adopt a risk-based approach to internal control design and implementation, focusing on the most significant risks to the organization's objectives.

4. The fourth part of the document addresses the role of technology in improving financial reporting and internal control systems. It discusses how automation and data analytics can enhance the efficiency and accuracy of these systems, while also providing new opportunities for fraud detection and risk management. The text concludes by emphasizing the importance of ongoing monitoring and improvement of these systems to ensure they remain effective in the face of evolving risks and challenges.

exclusion of natural plant species while shrubs are absent or present only where they are out of animal's reach. Proper management of the island can best be accomplished if the basic soil and vegetation resources are known both as to present conditions and potential conditions under any management scheme or practice. Although there have been past studies on the island's game animals, few, if any, studies have been conducted on the soils-vegetation resource. A baseline biophysical inventory and classification study is underway by the University of Montana's School of Forestry and financed by the Department of Fish and Game. The purpose being to: (1) describe the soils and vegetation present, (2) predict what the natural stable soils-vegetation environment is or could be, (3) predict the result of management practices, and (4) predict rates and kinds of vegetational changes. Not all of the foregoing will be answered in detail, but basic questions can be answered such as: what is the island's natural carrying capacity for bighorn sheep and deer? What other natural wildlife species can survive on the island? What original natural plant species can be reintroduced and where? How can food sources for a particular wildlife species be improved? How can range condition best be improved? Where on the island are erosion problems likely? What will be the effects of fire, fertilizers, or any other treatment on the plant community?

Interim management action will be limited to reduction of bighorn sheep numbers to approximately 50-75 animals. Upon completion of the baseline biophysical studies other management actions may be instituted to balance wildlife populations and improve the island's soil and vegetation resources.



NOTE: Since the text on this chapter was prepared, the distribution of the remainder of the sheep captured on January 17 and January 20 has been finalized. Twenty-five of the sheep were transplanted on Lower Rock Creek near Missoula. The other 25 were provided to the Confederated Salish and Kootenai Tribes of the Flathead Reservation for transplanting. The tribe agreed to reimburse the department for all costs incurred in trapping and transplanting these animals.

Wildlife and Vegetation

A. There are wildlife values associated with Wild Horse Island.

- * a. Manage to selectively enhance the status of certain species.
 - b. Manage to achieve maximum levels of population of all species.
 - * c. Manage to achieve a long-range natural balance between species.
 - d. Eliminate populations of selected species.
 - e. Take no action.
-

B. Regardless of options selected under "A" there are problems regarding selected species which must be addressed. These are:

1. The population of bighorn sheep is higher than the island's natural carrying capacity allows.

* a. Reduce population through trapping and transplanting.

*** b. Reduce population by sport hunting (may include archery only).

NOTE: The planning task force prioritized their recommendations to solve this problem. The task force recommended alternative "a." If implementation of that alternative does not solve the problem, then alternative "c" was recommended. If alternative "c" proves unsuccessful, the group suggested implementing alternative "b."

*** c. Reduce population by predator introduction.

d. Reduce population by introduction of disease organisms.

e. Reduce population by selective elimination (many methods available).

f. Study and develop method of birth control for sheep.

g. Take no action (allow natural die-off).

Alternative Strategies



2. The deer population needs to be maintained at a level of ecological suitability.

- * a. Determine desirable population level as it relates to existing conditions.
 - b. Improve the vegetative conditions.
 - c. Introduce predators to control population.
 - d. Feed artificially.
 - e. Reduce population through trapping and transplanting.
 - f. Reduce population by sport hunting (may include archery only).
 - g. Reduce population by introduction of disease organisms.
 - h. Reduce population by selective elimination (many methods available).
 - i. Study and develop method of birth control.
 - j. Take no action (allow natural die-off).
-

3. The effects of possible predator introduction to control other species are uncertain.

- a. Introduce predators and monitor effects.
 - b. If predators are introduced and become a problem, eliminate or reduce population by one or more of several available methods.
 - * c. Take no action until trapping and transplanting is evaluated.
-



4. Some people may wish to see other animals transplanted to the island

- a. Transplant other big game animals.
 - b. Transplant only small nongame animals.
 - c. Transplant only selected predators.
 - *d. No transplants of any kind until further study.
-

5. Raptor populations need to be maintained.

- *a. Preserve nesting habitat.
 - b. Increase nesting habitat.
 - c. Plant food species.
 - d. Restrict human activity in nesting areas.
 - *e. Monitor population and use areas.
 - *f. Encourage public awareness of raptor species and habitat requirements.
 - g. Take no action.
-

6. Goose populations need to be maintained.

- *a. Preserve habitat necessary for goose production.
 - b. Increase critical habitat.
 - c. Provide food species.
 - d. Restrict human activity in nesting areas.
 - *e. Monitor population and use areas.
 - *f. Encourage public awareness of goose habitat requirements.
 - g. Take no action.
-

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

PHYSICAL CHEMISTRY

LECTURE NOTES

BY

PROFESSOR

JOHN D. COLEMAN

AND

ASSISTANT PROFESSOR

JOHN D. COLEMAN

AND

ASSISTANT PROFESSOR

JOHN D. COLEMAN

AND

ASSISTANT PROFESSOR

JOHN D. COLEMAN

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

PHYSICAL CHEMISTRY

LECTURE NOTES

BY

PROFESSOR

JOHN D. COLEMAN

AND

ASSISTANT PROFESSOR

JOHN D. COLEMAN

AND

ASSISTANT PROFESSOR

JOHN D. COLEMAN

AND

ASSISTANT PROFESSOR

JOHN D. COLEMAN

C. In the past, wildlife harassment by dogs has been a problem.

D. One method of optimizing wildlife numbers is to improve the food availability critical for their survival.

E. The probability of wild fire is present much of the year.

*a. Ban all pets from the public portion of the island.

b. Provide kennels or other pet care services at mainland launch areas.

c. Allow pets on the island only on leash.

d. No restrictions on pets.

a. Introduce desirable species of plants.

b. Physically modify vegetation species by topping.

c. Introduce controlled burns in conformance with an accepted fire management plan after adequate study.

d. Artificially feed selected species at critical times of the year.

*e. Take no action until further study.

*a. Develop plan to provide for fire suppression.

*b. Provide additional firefighting equipment on the island.

c. Encourage formulation of fire control district among lot owners.

*d. Seek agreement with other agencies with fire suppression capabilities.

e. Contract with private entity for fire suppression.

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

THE HISTORY OF THE

F. Studies may reveal that some areas require modification to prevent erosion or enhance vegetation.

G. The academic community desires to utilize the island for scientific study purposes. It will be necessary to provide a means of coping with these demands.

f. Develop fire management plan and selectively burn areas.

* g. Restrict smoking to designated areas.

h. Take no action.

* a. Continue to conduct studies and monitor changes.

b. Provide physical barriers to alleviate erosion.

c. Reseed native grasses or other plants in selected areas.

d. Discourage intensive human use in areas of high erosion potential.

* e. Control wildlife population levels to prohibit overgrazing.

f. Fertilize or chemically modify soil in other manner if studies indicate necessity.

g. Take no action.

a. Prohibit use of island for educational or scientific research purposes.

b. Permit such use in accordance with established user regulations.

* c. Permit such use after submission of study plan to the department and subsequent approval by the department.



- d. Establish due process by which study plans may be approved.
 - e. Charge overhead rates on nondepartment sponsored research.
 - f. Encourage application for research projects from a limited number of universities.
 - *g. Encourage applications for research projects from a wide array of universities.
 - h. Allow only research that has obvious direct or side benefits to the department for management of the island.
 - i. Department provide its own research and solicit funding and projects in line with department priorities.
 - *j. Design and maintain a research program which contributes to island management decisions.
 - k. Take no action.
-



Management--Financing

As a unit of the Montana state park system, Wild Horse Island can be managed in many ways. It can receive little or no daily supervision; it can be managed by personnel stationed at one of the nearby mainland recreation areas; it could have a resident park manager; or be managed in other ways. This section of the plan discusses some of those management options as well as the financial realities of managing the island.

The Montana state park system is dependent upon several sources of revenue for its operation (see Appendix L). At present, the only feasible alternative operations funding source for most of the additions to the system is the state's general fund. Wild Horse Island is in this category. However, in the interest of holding down tax increases, the state legislature has been reluctant to increase general fund allocations over the past few years for operation of the system. Several alternative funding sources for operations have been identified and are being studied, but at the present, the state's general fund is the only feasible alternative.

The long-range building fund can be used for capital improvements to units of the park system. This state revenue is derived mainly from cigarette taxes and whenever possible is shared on a 50/50 basis for park and recreation area developments or acquisitions with the federal Land and Water Conservation Fund, the funding source of the island acquisition.

The financial resources needed to adequately manage the island depend largely on the decisions made for direct management of the island. These topics are inter-related. The remainder of this chapter discusses many of these problems and alternative strategies for solving them.





Management--Financing

Alternative Strategies

A. How is the island to be maintained?

- * a. Department provide a full-time or seasonal park manager.
 - * b. Department provide other operations and maintenance personnel as needed.
 - c. Contract with private enterprise.
 - d. Contract with other governmental agencies.
 - e. Rely on government sponsored youth employment and training programs.
 - * f. Encourage volunteer service or youth organizations to assist.
-

B. As this plan is implemented it will be necessary to monitor its effectiveness.

- a. Conduct management and use studies on periodic intervals.
 - * b. Conduct studies as need arises from identification of new problems.
 - * c. Retain an advisory council of interested citizens, agencies, and organizations to monitor effectiveness and periodically update the management plan.
 - d. Take no action.
-

C. How is operations and maintenance funding to be obtained?

- * a. Request general fund increase from legislature.
- b. Impose user fees for any person using the island at any time.
- c. Establish camping fees if camping is allowed.
- d. Use a portion of coal tax money earmarked to the state park system.
- e. Use earmarked hunting and fishing license money.
- * f. Use a portion of motorboat gasoline tax earmarked to the state park system.
- g. Negotiate charges for educational and research projects taking place on the island.
- h. Finance with revenue from concession rights if offered to private sector.

D. How will capital improvements be financed if any are built?

-
- a. State long-range building fund.
 - b. Federal Land and Water Conservation (in most instances requires 50% state match).
 - c. Private donations.
 - d. Concession revenue if rights are offered to private sector.
 - e. Lease development rights. Private enterprise invest capital and assess fees for use.
 - f. Use earmarked hunting and fishing license money.

CHAPTER 4

ACTION PLAN

The preceding chapter discussed many of the problems facing the department in the management of this magnificent state park. After careful deliberation of the problems, alternative solutions, the public preference survey and task force recommendations, the department has decided which problems will be addressed and how.

This chapter outlines the broad management guidelines for Wild Horse Island as well as specific management actions which will be undertaken by the Department of Fish and Game through June 30, 1981. This period was chosen because:

1. An initial two-year planning cycle gives flexibility for updating and making needed plan changes as more insight into long-range problems and solutions is gained. A detailed plan prepared now for longer than two years would probably waste time and money.
2. The end result of a good planning effort is wise direction of money and manpower. Linking the planning cycle with the state's budget cycle assures a close association of day-to-day management with the planning process. The state's next budget cycle begins on July 1, 1979, and ends on June 30, 1981.

Wild Horse Island will be managed as a state park under authority granted to the Department of Fish and Game under Sections 62-301 and 62-304 of the Revised Codes of Montana (see Appendix D).

Although it is a state park and falls under the administrative jurisdiction of the Parks Division, other department personnel will play active management roles when appropriate. Parks Division Administrator, Ron Holliday has the primary staff responsibility. The department's Kalispell based Regional Supervisor Tom Hay has the primary line responsibility for the area. Table I illustrates the basic organization of responsibilities for the park.

By law, administration and management of Montana's state park system is fulfilled under policy set by the Fish and Game Commission. Also by law, the director is head of the Department of Fish and Game. He is responsible for administration of the Fish and Game Department and must carry out policies established by the Fish and Game Commission.

- A. The overall "staff" responsibility is assigned to the deputy director and the administrators of the Parks and Wildlife Divisions. Since the island is classified as a state park, only the

Introduction

1. The purpose of this study is to investigate the effects of the proposed system on the performance of the participants.

2. The study was conducted in a controlled environment with a sample of 30 participants.

3. The results of the study indicate that the proposed system significantly improved the performance of the participants.

4. The study also found that the proposed system was easy to use and did not cause any adverse effects on the participants.

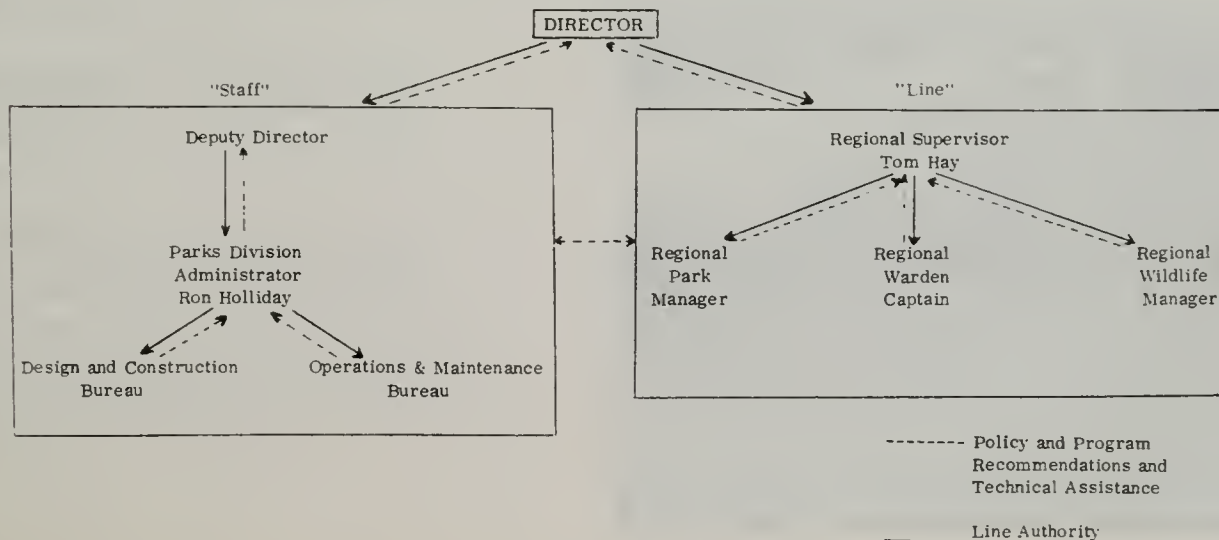
5. The study was limited by the small sample size and the controlled environment.

Parks Division is shown on Table I and is assigned lead staff responsibilities for the park's management. This staff responsibility includes financial allocations needed to assure adequate implementation of policies and program, as well as technical support services such as facility design and engineering expertise. Mr. Holliday has the added responsibility of evaluating the effectiveness of policies and the program, for long-range planning, and shall periodically revise this management plan in consultation with Mr. Hay and other staff as appropriate.

- B. For Wild Horse Island management, "line" authority is delegated by Director Wambach to Regional Supervisor Tom Hay. It shall be Mr. Hay's task to implement and coordinate the policies and program established by the director in the day-to-day management of the park.

Between "line" and "staff" there is a need for close coordination and cooperation. Particularly, results of studies, inventories and research must be interpreted, and "staff" must be advised as to potential priorities and needed policies, regulations and financial requirements by "line." The primary facilitator of this coordination shall be the deputy director.

TABLE I
ORGANIZATION OF MANAGEMENT RESPONSIBILITY
WILD HORSE ISLAND STATE PARK



The major management issues which will receive attention by the Department of Fish and Game until June 30, 1981, provided necessary funding is available, are:

General Park Administration
Public Use Regulation and Enforcement
Wildlife and Vegetation
Public Transportation
Public Use Facility Planning

A detailed plan of action follows on each of these major issues. The following will help explain the action objectives.

Fiscal Year--This is the basic budget cycle for Montana state agencies. Fiscal year 1980 begins July 1, 1979, and ends June 30, 1980. Fiscal year 1981 begins July 1, 1980, and ends June 30, 1981.

Action Objectives--As the name implies, this refers to work which will be initiated by this department for the period covered by this plan.

FTE--Abbreviation for "full-time equivalent." One FTE is the equivalent of one person working for one year. Thus, one-half FTE (0.5 FTE) could be: one person working six months, or two people working three months each, or three people working two months each, etc.

Cost--The cost of the activity for the appropriate fiscal year.

Funding Source--The source of the funding anticipated to carry out the particular action objective.

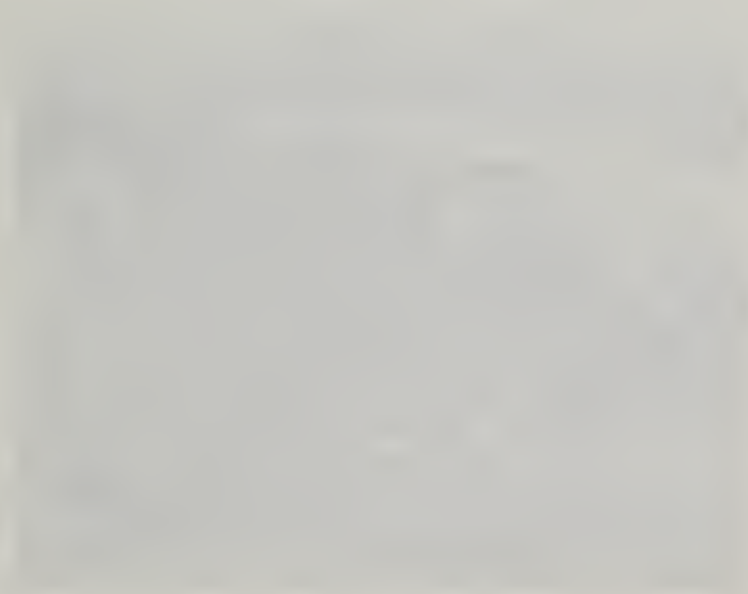
GF--State's general tax fund
FG--Fish and Game License Revenues
FPR--Federal and Private Revenue,
federal cost share programs,
donations, etc.

Lead--This refers to the person having the basic responsibility to carry out the particular action objective, i.e., "line" or "staff" responsibility.



1. The first part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying our curiosity about the past, but also a means of training the mind and of developing the character.

2. The second part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying our curiosity about the past, but also a means of training the mind and of developing the character.



General Park Administration

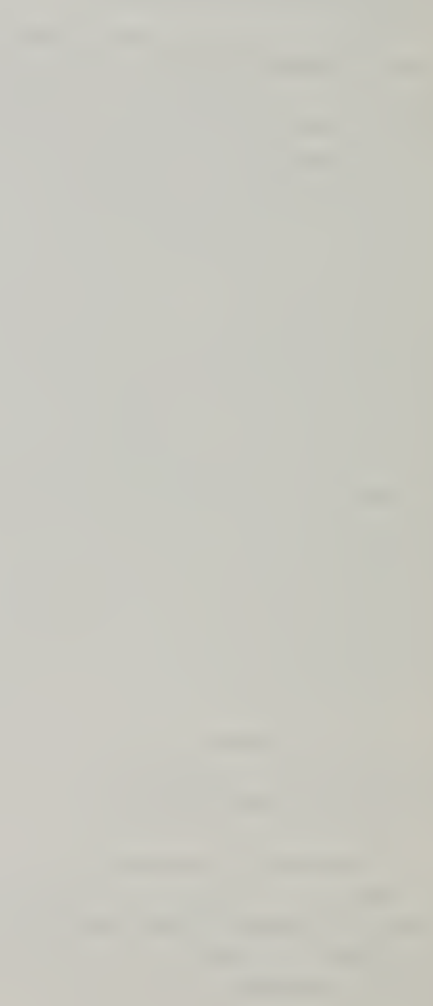
Wild Horse Island State Park will be managed along the basic guidelines established for components of the state parks system (see Appendix D). It will be mentioned in standard state park literature and will be managed on a day-to-day basis by a seasonally hired park manager or caretaker whose efforts will be supplemented by other seasonal and full-time employees as necessary. For specific projects, efforts will be made to generate volunteer assistance and assistance from programs operating at little or no cost to the state. Research projects which contribute to Wild Horse Island management decisions will be formulated and given priority. Independent research proposed for the park must be coordinated through this department. Research which will be funded by the department during the next two years includes a continuation of the soils-vegetation study and an archeological study. The University of Montana has agreed to provide for a nongame/raptor/waterfowl study which will be coordinated with the department.

Parcels number 4 and 5 of the island are contemplated to be purchased by the state during the next two fiscal years.

The overall park management and the effectiveness of this management plan and its implementation will be closely monitored and evaluated. An updated management plan will be produced for implementation in the ensuing two years after the expiration of this plan.



Specific actions follow which will be undertaken by the Department of Fish and Game during fiscal years 1980 and 1981 regarding the general administration of Wild Horse Island State Park.



General Administration -- Action Objectives

Fiscal Year 1980

Initiate purchase of parcel number 4 of island and secure necessary funding:

Fund
.01 FTE \$250 Cost GF Source Holliday Lead

* Budget for capital expenditures:

Fund
0 FTE 0 Cost - Source Holliday Lead

* Budget for operation and maintenance activity:

Fund
0 FTE 0 Cost - Source Holliday Lead

Hire and supervise seasonal park manager and necessary maintenance personnel to carry out management objectives outlined in this plan:

Fund
.93 FTE \$14,900 Cost GF Source Hay Lead

Attempt to secure volunteer help for park management or help from programs available at little or no cost to the state:

Fund Joint--Hay/
.01 FTE \$250 Cost GF Source Holliday Lead

Fiscal Year 1981

Initiate purchase of parcel number 5 of island and secure necessary funding:

Fund
.01 FTE \$265 Cost GF Source Holliday Lead

* Budget for capital expenditures:

Fund
0 FTE 0 Cost - Source Holliday Lead

* Budget operations and maintenance activity:

Fund
0 FTE 0 Cost - Source Holliday Lead

Hire and supervise seasonal park manager and necessary maintenance personnel to carry out management objectives outlined in this plan:

Fund
.93 FTE \$16,000 Cost GF Source Hay Lead

Attempt to secure volunteer help for park management or help from programs available at little or no cost to the state:

Fund Joint--Hay/
.01 FTE \$265 Cost GF Source Holliday Lead

* Part of regular budget process



General Administration -- Action Objectives (continued)

Fiscal Year 1980

Retain contact with planning task force. Conduct meeting for update on plan implementation, unanticipated problems, etc:

.01 FTE \$370 Cost GF Source Holliday Lead

Monitor effectiveness of park management:

Fund

.01 FTE \$370 Cost GF Source Holliday Lead

Monitor effectiveness of management plan and its implementation. Make recommendations for changes if necessary.

Fund

.01 FTE \$370 Cost GF Source Holliday Lead

Initiate archeological study for the island.

Fund

.01 FTE \$2,250 Cost GF Source Holliday Lead

Fiscal Year 1981

Retain contact with planning task force. Conduct meeting for update on plan implementation, unanticipated problems, etc:

.01 FTE \$385 Cost GF Source Holliday Lead

Monitor effectiveness of park management:

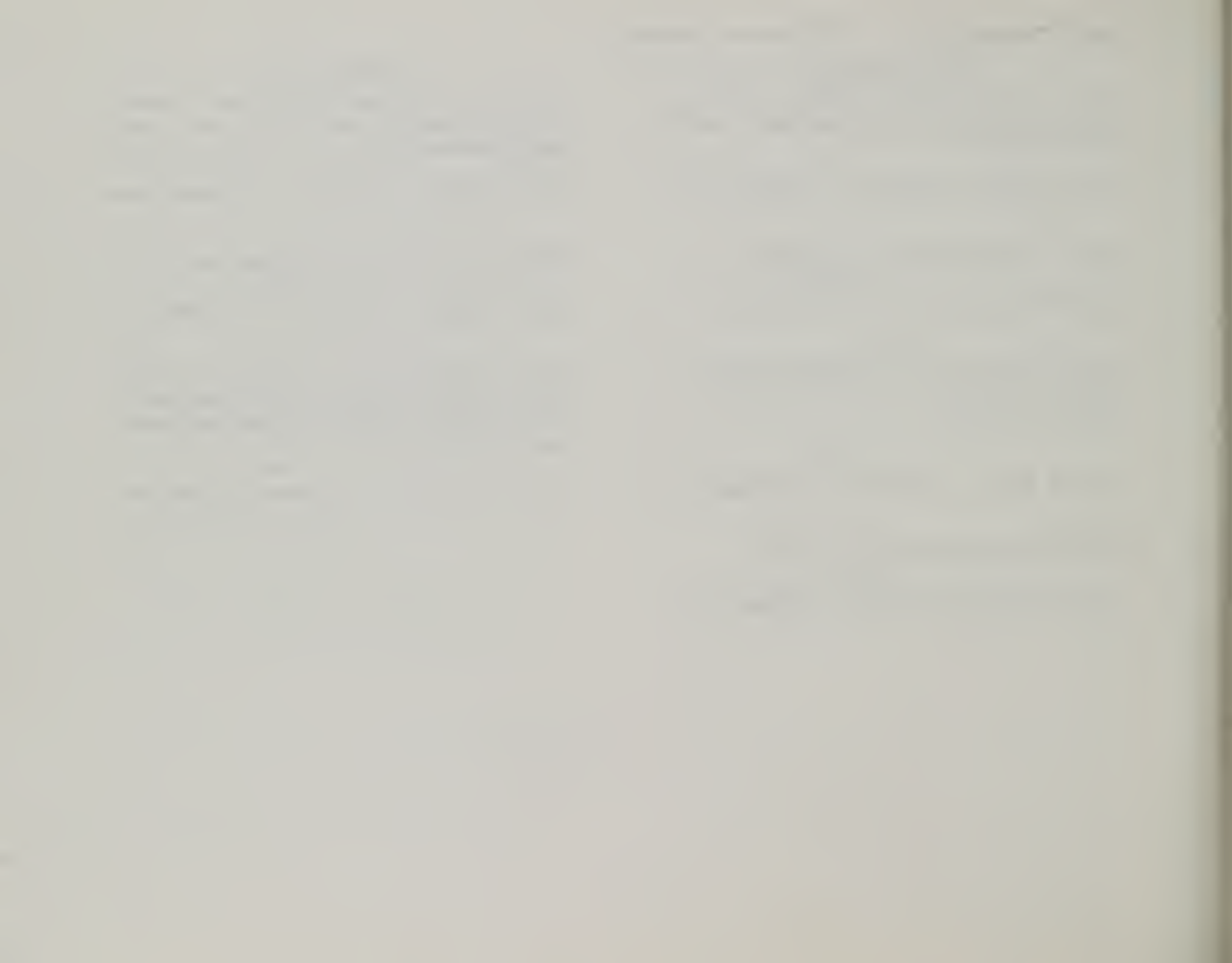
Fund

.01 FTE \$385 Cost GF Source Holliday Lead

Monitor effectiveness of management plan and its implementation. Prepare updated management plan for 1982-83 biennium including budget needs, research needs, etc:

Fund

.045 FTE \$1,735 Cost GF Source Holliday Lead



Public Use Regulations and Enforcement

Public use regulations must be approved by the Fish and Game Commission to be in effect for any area in the state parks system. Under provisions of the Montana Administrative Procedure Act, public use regulations for the park will be considered annually. Notice of the regulations will be made to the public by signs posted on the island and at other appropriate locations.

The public use regulations now in effect for the park will remain in effect throughout calendar year 1979. The effectiveness and appropriateness of these regulations will be closely monitored during calendar year 1979 and changes will be recommended for calendar year 1980 if appropriate. Particular attention will be given as to the appropriateness of overnight camping, at least in a limited manner, and the prohibition of open fires on any portion of the island for the entire year. In the event of an unforeseen emergency, the regulations can be changed on short notice.

Park law enforcement will be performed primarily by Department of Fish and Game wardens. They will be assisted whenever appropriate by other department personnel and law enforcement personnel from other agencies. Efforts will be made to give ex officio warden training and authority to permanent and seasonal personnel involved in the park's management. Several park division employees who are involved with the park's management have ex officio training and authority.



Following are specific actions which will be undertaken by the Department of Fish and Game during fiscal years 1980 and 1981 primarily regarding public use regulations and law enforcement.



1. The first part of the document is a list of names and addresses, followed by a list of names and addresses. The list of names and addresses is as follows:

Name	Address
John Doe	123 Main St.
Jane Smith	456 Elm St.
Bob Johnson	789 Oak St.
Alice Brown	101 Pine St.
Charlie White	202 Cedar St.
Diana Green	303 Birch St.
Frank Black	404 Spruce St.
Grace Hall	505 Willow St.
Henry King	606 Ash St.
Ivy Lee	707 Hickory St.
Jack Miller	808 Sycamore St.
Karen Wilson	909 Magnolia St.
Leo Taylor	1010 Poplar St.
Mia Adams	1111 Cherry St.
Noah Baker	1212 Peach St.
Olivia Clark	1313 Apple St.
Peter Evans	1414 Orange St.
Quinn Foster	1515 Lemon St.
Rachel Gibson	1616 Grape St.
Samuel Hill	1717 Plum St.
Tina Scott	1818 Pear St.
Victor Turner	1919 Fig St.
Wendy Young	2020 Olive St.
Xavier Wright	2121 Walnut St.
Yara Lopez	2222 Chestnut St.
Zoe Harris	2323 Pecan St.

Name	Address
John Doe	123 Main St.
Jane Smith	456 Elm St.
Bob Johnson	789 Oak St.
Alice Brown	101 Pine St.
Charlie White	202 Cedar St.
Diana Green	303 Birch St.
Frank Black	404 Spruce St.
Grace Hall	505 Willow St.
Henry King	606 Ash St.
Ivy Lee	707 Hickory St.
Jack Miller	808 Sycamore St.
Karen Wilson	909 Magnolia St.
Leo Taylor	1010 Poplar St.
Mia Adams	1111 Cherry St.
Noah Baker	1212 Peach St.
Olivia Clark	1313 Apple St.
Peter Evans	1414 Orange St.
Quinn Foster	1515 Lemon St.
Rachel Gibson	1616 Grape St.
Samuel Hill	1717 Plum St.
Tina Scott	1818 Pear St.
Victor Turner	1919 Fig St.
Wendy Young	2020 Olive St.
Xavier Wright	2121 Walnut St.
Yara Lopez	2222 Chestnut St.
Zoe Harris	2323 Pecan St.

Public Use Regulations and Enforcement--Action Objectives

Fiscal Year 1980

Monitor effectiveness of calendar year 1979 public use regulations and recommend changes if necessary for calendar year 1980:

Fund
.01 FTE \$250 Cost GF Source Holliday Lead

Coordinate budget for regulations and law enforcement activity:

Fund
.005 FTE \$125 Cost GF Source Holliday Lead

Enforce public use regulations and applicable laws and make recommendations for change if appropriate:

Fund
.08 FTE \$1,880 Cost GF Source Hay Lead

Coordinate ex officio warden training for appropriate park management personnel:

Fund
.02 FTE \$490 Cost GF Source Hay Lead

Fiscal Year 1981

Monitor effectiveness of calendar year 1980 public use regulations and recommend changes if necessary for calendar year 1981:

Fund
.01 FTE \$265 Cost GF Source Holliday Lead

Coordinate budget for regulations and law enforcement activity:

Fund
.005 FTE \$130 Cost GF Source Holliday Lead

Enforce public use regulations and applicable laws and make recommendations for change if appropriate:

Fund
.08 FTE \$1,970 Cost GF Source Hay Lead

Coordinate ex officio warden training for appropriate park management personnel:

Fund
.02 FTE \$530 Cost GF Source Hay Lead



Wildlife and Vegetation

The long-term management goal concerning wildlife and vegetation is to achieve a balance between the various species of plants and animals. Management to selectively enhance the status of certain species of animals will be fully addressed in subsequent plans. Department action which will have taken place by June 30, 1981, is not anticipated to radically enhance one species relative to another by that time.

If necessary, the bighorn sheep herd will be reduced to a size of approximately 50-75 animals by trapping and transplanting during the fall of 1979. This program will be monitored closely and, based on the findings, recommendations will be formulated regarding future methods of maintaining a stable herd size for 1980 and ensuing years. The island's animals will not be artificially fed to prevent severe winter die-offs. Some winter mortality is to be expected.

During the period covered by this plan, no plants or animals will be transplanted to the island.

Following are specific actions which will be undertaken by the Department of Fish and Game during fiscal years 1980 and 1981 primarily regarding vegetation and wildlife:





1954

1955

1956

1957

Wildlife and Vegetation--Action Objectives

Fiscal Year 1980

If necessary, reduce bighorn sheep population to approximately 50-75 animals by trapping and transplanting in fall of 1979:

FG/ Fund
.04 FTE \$2,200 Cost FPR Source Hay Lead

Develop and implement fire management plan for island:

Fund
.01 FTE \$270 Cost GF Source Hay Lead

Fund second year of University of Montana soils-vegetation study:

.005 FTE \$5,525 Cost GF Source Holliday Lead

Approve waterfowl/raptor/nongame wildlife study plan formulated and financed by the University of Montana:

FG/ Fund
.01 FTE \$250 Cost FPR Source Hay Lead

Monitor deer population of island:

FG/ Fund
.01 FTE \$450 Cost FPR Source Hay Lead

Fiscal Year 1981

Initiate sheep management program based on evaluation performed in fiscal year 1980:

FG/ Fund
.02 FTE \$530 Cost FPR Source Hay Lead

Monitor waterfowl/raptor/nongame wildlife study:

FG/ Fund
.02 FTE \$530 Cost FPR Source Hay Lead

Evaluate results and recommendations of University of Montana soils-vegetation study. Make recommendations for implementation of findings if appropriate:

FG/
.01 FTE \$265 Cost FPR Source Hay Lead

Monitor deer population of island. Formulate recommendations for number of deer to be carried through the next winter and for method to maintain the herd size if necessary:

FG/
.01 FTE \$465 Cost FPR Source Hay Lead

THE
JOURNAL OF THE
ROYAL ANTHROPOLOGICAL INSTITUTE

Volume 100, Part 1, 2000

Edited by
Professor Sir John Clutton-Brock

Published by
Blackwell Science Ltd

108 Cowley Road, Oxford OX4 1JF, UK
350 Main Street, Malden, MA 02148, USA

Subscription prices (which include postage) for institutions are:
Volume 100, Parts 1-4, 2000: £1200 net (US \$1950 in USA, Canada and Mexico)

Volume 101, Parts 1-4, 2001: £1200 net (US \$1950 in USA, Canada and Mexico)

Volume 102, Parts 1-4, 2002: £1200 net (US \$1950 in USA, Canada and Mexico)

Volume 103, Parts 1-4, 2003: £1200 net (US \$1950 in USA, Canada and Mexico)

Volume 104, Parts 1-4, 2004: £1200 net (US \$1950 in USA, Canada and Mexico)

Volume 105, Parts 1-4, 2005: £1200 net (US \$1950 in USA, Canada and Mexico)

Wildlife and Vegetation--Action Objectives (continued)

Fiscal Year 1980

Monitor sheep population of island:

FG/ Fund

.01 FTE \$450 Cost FPR Source Hay Lead

Monitor and evaluate effectiveness of sheep trapping and transplanting. Formulate recommendations for number of sheep to be carried through the next winter and for method to maintain the herd size for inclusion in the management plan:

FG/ Fund

.01 FTE \$250 Cost FPR Source Hay Lead

Public Transportation

Making Wild Horse Island accessible to those who do not own a boat or whose boat is not readily available is a major challenge. This has been identified as a major need and will receive considerable attention during the next two years.

During fiscal year 1980 an internal feasibility study will be undertaken looking into the establishment of a public transportation system provided directly by the state, by a concessionaire or perhaps by other methods. Following the study findings, an experimental transportation system will be instituted during fiscal year 1981 if it is deemed feasible.

Also to be studied is the feasibility of a mainland boat launch/retrieval site primarily for access to the island. Meanwhile, Walstad Recreation Area will be identified as the primary interim access point.

Brochures explaining access to the island, regulations, etc. will also be produced.

Following are specific actions which will be undertaken by the Department of Fish and Game during fiscal years 1980 and 1981 primarily regarding public transportation to and from Wild Horse Island State Park.





THE
LIBRARY OF THE
UNIVERSITY OF CHICAGO
1215 EAST 58TH STREET
CHICAGO, ILL. 60637
U.S.A.

Public Transportation--Action Objectives

Fiscal Year 1980

Construct and install signing adjacent to Walstad Recreation Area alerting people that it is the launch site for Wild Horse Island on an interim basis:

Fund

.01 FTE \$250 Cost GF Source Hay Lead

Prepare brochures for distribution explaining the park's management and transportation:

Fund

.02 FTE \$700 Cost GF Source Holliday Lead

Study feasibility of public transportation system provided directly by state or by concessionaire:

.03 FTE \$750 Cost GF Source Holliday Lead

Study feasibility for permanent mainland launch/retrieval site primarily for access to Wild Horse Island:

.05 FTE \$1,850 Cost GF Source Holliday Lead

Fiscal Year 1981

* Implement public transportation system as a result of 1980 feasibility studies.

Fund

.04 FTE \$2,300 Cost GF Source Hay Lead

Prepare brochures for distribution explaining the park's management and emphasizing the public transportation system:

Fund

.02 FTE \$730 Cost GF Source Holliday Lead

Monitor effectiveness of public transportation system and recommend modifications:

Fund

.01 FTE \$385 Cost GF Source Holliday Lead

* Plus cost of equipment, if necessary

Public Use Facility Planning and Construction--Action Objectives

Fiscal Year 1980

Study feasibility of construction of a public boat dock and toilet in Little Skeeko Bay vicinity or more appropriate location:

Fund

.02 FTE \$740 Cost GF Source Holliday Lead

Study feasibility of construction of administrative site in Little Skeeko Bay vicinity or a more appropriate location:

Fund

.01 FTE \$370 Cost GF Source Holliday Lead

Improve existing foot trails and construct short segments of new trail leading from Little Skeeko Bay to interior of island:

Fund

.02 FTE \$230 Cost GF Source Holliday Lead

Inventory sign needs and initiate signing program for island and mainland launch sites if necessary:

Fund

.01 FTE \$400 Cost GF Source Hay Lead

Monitor user patterns and desires for effectiveness of facility locations and for possible future facilities:

Fund

.01 FTE \$370 Cost GF Source Holliday Lead

Fiscal Year 1981

Design public boat dock and toilet in Little Skeeko Bay vicinity or a more appropriate location if deemed more feasible.

Fund

.02 FTE \$770 Cost GF Source Holliday Lead

Design administrative site for Little Skeeko Bay vicinity or a more appropriate location if deemed more feasible:

Fund

.01 FTE \$385 Cost GF Source Holliday Lead

Monitor user patterns and desires for effectiveness of facility locations and for possible future facilities. Formulate recommendations for further facility development:

Fund

.02 FTE \$770 Cost GF Source Holliday Lead

Design mainland launch/retrieval site primarily for access to the island if feasible:

Fund

.02 FTE \$770 Cost GF Source Holliday Lead



Budget Summary

The manpower and funding budgets established for each action objective will be used as a guideline for Mr. Hay and Mr. Holliday. Each assigned task will be appropriately undertaken according to the lead assignment. Each action objective budget establishes the relative level of effort and cost for each objective. Mr. Hay and Mr. Holliday will have the latitude to put forth more or less effort than is allocated for a particular objective. However, they will address each ob-

jective and make a written report to the director at the end of each fiscal year briefly outlining specific activities and accomplishments. Mr. Holliday will use this information in updating the plan.

The fiscal year 1981 budget may be slightly modified prior to its implementation depending upon the experience gained in fiscal year 1980.

A budget summary follows:

<u>Fiscal Year 1980</u>			
	<u>Amount</u>	<u>Funding Source</u>	<u>FTE's</u>
"Parks Staff" Budget	\$ 14,290	General Fund	0.21
"Parks Line" Budget	\$ 18,670	General Fund	1.09
"Wildlife Line" Budget	3,600	Fish and Game License Revenue and Federal & Private Revenue	.08
Totals	<u>\$ 36,560</u>		<u>1.38</u>

<u>Fiscal Year 1981</u>			
	<u>Amount</u>	<u>Funding Source</u>	<u>FTE's</u>
"Parks Staff" Budget	\$ 6,975	General Fund	0.19
"Parks Line" Budget	\$ 21,065	General Fund	1.08
"Wildlife Line" Budget	\$ 1,790	Fish and Game License Revenue and Federal & Private Revenue	0.06
Totals	<u>\$ 29,830</u>		<u>1.33</u>



APPENDIX

Appendix A

Map of Lot Owner's Holdings



- ◉ 1/2 acre lots (8)
- 1 acre lots (39)
- 1 acre lots owned by the MacDonald Family



Appendix B

HOUSE BILL NO. 836

INTRODUCED BY DRISCOLL, MELOY, BRADLEY

AN ACT TO APPROPRIATE MONEY FOR THE PUBLIC ACQUISITION OF WILD HORSE ISLAND, LOCATED ON FLATHEAD LAKE; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Appropriation. There is appropriated from the state parks federal and private revenue account (04186) the sum of \$2,000,000 to the director, department of fish and game.

Section 2. Purpose of appropriation. The money appropriated by this act is to be used by the department of fish and game for the purpose of purchasing Wild Horse Island on Flathead Lake should such property become available and the federal funds be received.

Section 3. Effective date. This act is effective on its passage and approval. _____

AN ACT TO APPROPRIATE MONEY FOR THE PUBLIC ACQUISITION OF WILD HORSE ISLAND, LOCATED ON FLATHEAD LAKE; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

STATE OF MONTANA

FILED

APR 20 1977

FRANK MURRAY
SECRETARY OF STATE

By

Frank Murray
Deputy

This bill was received by
the _____ on this 19th day

of April 1977

Clifford D. Dodge

By *Don Mess*

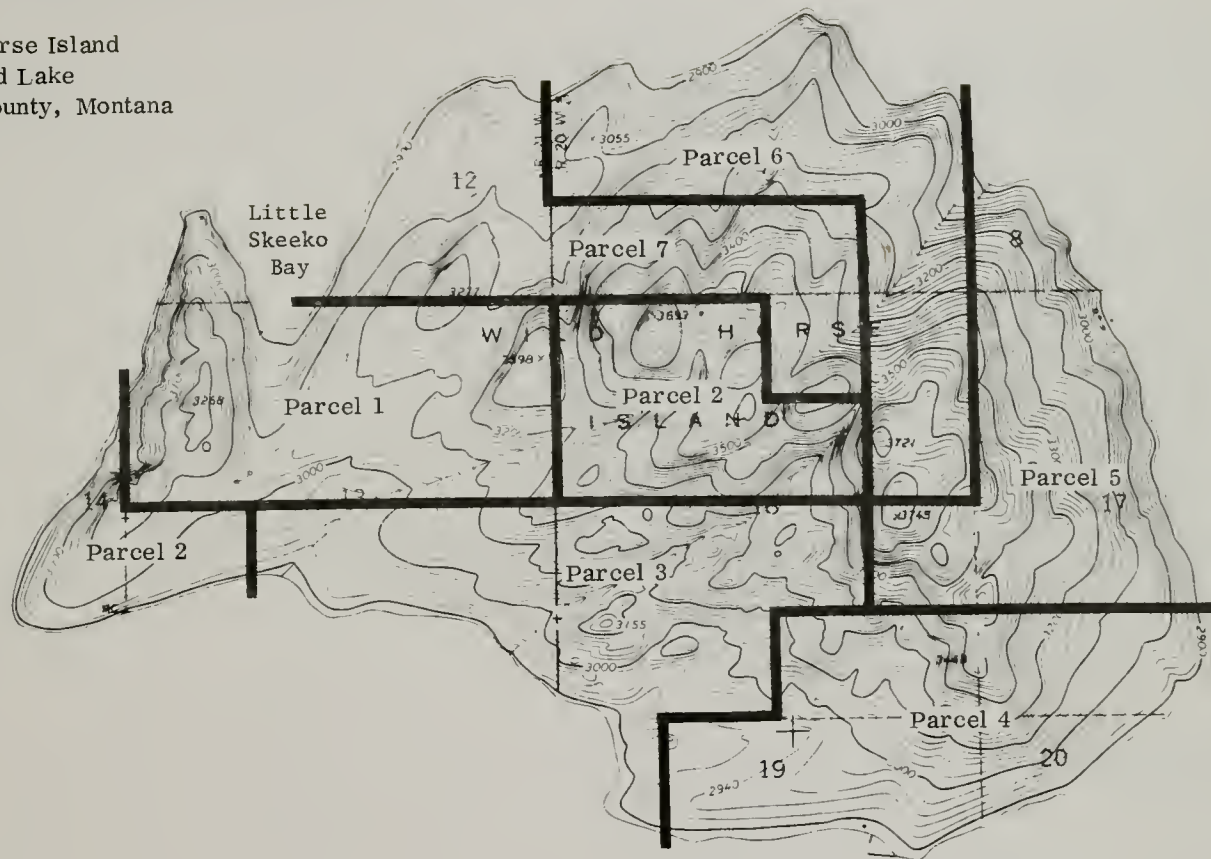
Approved

4-20-77

Governor

Appendix C

Wild Horse Island
Flathead Lake
Lake County, Montana



(TITLE 62—PARKS AND RECREATION)

CHAPTER 3—STATE PARKS

62-301. Purpose. For the purpose of conserving the scenic, historic, archaeological, scientific, and recreational resources of the state and providing for their use and enjoyment, thereby contributing to the cultural, recreational, and economic life of the people and their health, the department of fish and game (hereinafter referred to as department) is hereby vested with the duties and powers hereinafter set forth.

62-301. Powers and duties. The department shall make a study to determine the scenic, historic, archaeological, scientific, and recreational resources of the state, and may by purchase, lease, agreement, acceptance of donations, or condemnation acquire for the state any areas, sites, or objects which in its opinion should be held, improved, and maintained as state parks, state recreational areas, state monuments, or state historical sites. The department may in its discretion accept in the name of the state, in fee or otherwise, any areas, sites, or objects conveyed, entrusted, donated, or devised to the state. It may in its discretion accept gifts, grants, bequests, or contributions of money or other property to be spent or used for any of the purposes of sections 62-301 through 62-308. A contract may not be entered into or other obligation incurred until moneys have been appropriated by the legislature or are otherwise available. The department also has jurisdiction, custody, and control of all state parks, recreational areas, public camping grounds, historical sites, and monuments, except wayside camps and other public conveniences acquired, improved, and maintained by the department of highways and contiguous to the state highway system. The department may designate lands under its control as state parks, state historical sites, state monuments, or by any other designation it considers appropriate, remove or change the designation of any area or portion, and name change the name of any area as designated. The department may lease those portions of designated lands which are necessary for the proper administration of these lands in keeping with the basic purpose of sections 62-301 through 62-308.

62-305. Disposal of fees and charges. (1) The department shall have power to levy and collect reasonable fees or other charges for the use of such privileges and conveniences as may be provided, and to grant such concessions as it may deem advisable, except as provided in subsection (2). All moneys derived from the activities of the department shall be deposited in the state treasury in the earmarked revenue fund to the credit of the department.

(2) Any Montana resident as defined in 26-202-3 who is 65 years of age or older may purchase a "Montana state golden years pass" for \$1 which, when attached to his or her vehicle, allows the passengers of that vehicle to camp free in Montana state parks, recreation areas, and fishing access sites. This pass is valid for the lifetime of the individual.

62-306. Rules. The department may make rules governing the use, occupancy, and protection of the lands and property under its control.

Appendix D

Legal and Administrative Definitions of State Parks System (continued)

12-2.26(1)-S2670 CRITERIA FOR RECREATION AND PARK SYSTEM

(1) The conglomerate lands administered by the Recreation and Parks Division of the Montana Department of Fish and Game are designated by various terms - state parks, recreation areas, archeological sites, monuments, fishing access sites, etc. Lack of specific criteria for assigning area classifications has produced many inconsistencies in designation. To provide for the orderly and efficient administration of existing components and future acquisitions, classification criteria should be established describing the purposes and physical characteristics of the various categories. Such criteria will determine appropriate development and management procedures. They will also be used as standards for acquisition, designation, and redesignation of park-system components and as guides to funding.

The following categories, criteria, and procedures are suggested for all existing and future areas administered under the parks system:

(a) State Parks

(i) Purpose: To provide high-quality recreation experience distinctive and notable enough to attract people on a state, regional or national basis.

(ii) Description: Open-space areas of unique scenery or other outstanding natural features of an aesthetic, historical, geological, archaeological, or scientific nature. State parks will be selected on the basis of these inherent characteristics without regard to geographic location.

(iii) Development and Management: Development of roads and desirable facilities will be planned with precise and sensitive regard for all natural features and without impingement upon the visitors' aesthetic and intellectual sensibilities. Management will be directed toward retention of state parks in as near a natural condition as possible, without impairment of ecological features and values.

Appendix E

WILD HORSE ISLAND MANAGEMENT PLANNING TASK FORCE
consisted of the following individuals and representatives from the following organizations

Flathead Tomorrow
Ronan, Montana

The Nature Conservancy
Portland, Oregon

University of Montana
Missoula, Montana

Wild Horse Island Property
Owners Association

Montana Department of Natural Resources
and Conservation, Division of Forestry

The Confederated Salish and Kootenai Tribes
of the Flathead Reservation and Bureau of
Indian Affairs

Flathead Wildlife, Inc.
Kalispell, Montana

Folson Outdoors
Polson, Montana

Lake County Commission
Polson, Montana

Ron B. MacDonald
Missoula, Montana

George Ostrom
Kalispell, Montana

Appendix F

WILD HORSE ISLAND QUESTIONNAIRE

PART I. USE & MANAGEMENT

- Do you own lakeshore property on Flathead? ☐ Yes ☐ No
- Do you own a boat or other watercraft which is used primarily on Flathead Lake?
☐ Yes (if "yes," continue with question #3)
☐ No (if "no," please move to question #4)
- How frequently do you circle Wild Horse Island or portions of it when using this watercraft?
☐ Every time I boat on the lake ☐ Only occasionally
☐ Most of the time ☐ Never
- Have you ever actually been on Wild Horse Island?
☐ Yes (if "yes," continue with question #5)
☐ No (if "no," please move to question #8)
- Why did you visit Wild Horse Island? (Please check all those that apply.)
☐ Own ~~land~~ property on island ☐ Observing wildlife
☐ Visiting friends who ☐ Camping
☐ live on island ☐ Rock climbing
☐ Day hiking ☐ Fishing
☐ Photography ☐ Other (please specify)
☐ Swimming
- What year did you first visit Wild Horse Island? _____
- During the summers of 1977 and 1978 about how many separate times have you been on Wild Horse Island?
☐ Never ☐ 4-10 times
☐ 1-3 times ☐ More than 10 times
- Wild Horse Island currently has no visitor facilities or public transportation services. Visitor use on the island is highly restricted (no open fires, camping, smoking, motorized vehicles, firearms, hunting, pets). The island also is the habitat for a herd of less than 200 bighorn sheep. Because of its isolation as an island, Wild Horse Island will be a very unique State Park. In the future, which of the following uses, facilities, services, and regulations would you prefer on the island? (Please check all those that apply.)

Transportation

- ☐ Leave as is
☐ Public Boat Ferry to Island
☐ Private Boat Ferry to Island
☐ Bridge connecting Island with mainland
☐ Paved roads on Island
☐ Off-road vehicle use
☐ Developed hiking trails
☐ Helicopter pads

Facilities

- ☐ Leave as is ☐ Interpretative Visitor Center
☐ Public toilets ☐ Observation Tower
☐ Picnic area ☐ Boy Scout-type camp
☐ Public beach ☐ Campground
☐ Public docks

Regulations

- ☐ Leave as is ☐ Allow pets
☐ Allow hunting ☐ Do not allow hunting
☐ Allow overnight camping ☐ Close Island to all visitors
☐ Allow open fires

Wildlife

- ☐ Leave as is ☐ Remove entire Bighorn herd
☐ Increase bighorn population
☐ Decrease bighorn population
☐ Stock other game

PART II. CONFIDENTIAL PERSONAL INFORMATION -- Please remember that you will not be identified with your answers in any way.

- Sex: ☐ Male ☐ Female
- What is your age: _____ years old
- What was the gross annual income of your household in 1977? (Income before taxes)
☐ Under \$5,000 ☐ \$15,000-\$24,999
☐ \$5,000-\$9,999 ☐ \$25,000-\$34,999
☐ \$10,000-\$14,999 ☐ Over \$35,000
- What is the highest level of education you have completed? (Please circle just one number)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 16+
Elementary High School College
- How long have you been a resident of Montana? _____ yrs
- What is your occupation? (Please indicate what kind of work you do, not for whom you work. If you are a homemaker, student, or retired individual, please indicate so.) _____
- Finally, space is provided for any comments or suggestions you wish to make. _____

PLEASE SEPARATE THE TWO SECTIONS OF THE QUESTIONNAIRE ALONG THE PERFORATED LINE. THEN MAIL THE COMPLETED, POSTAGE-PAID

Appendix G

Questionnaire Distribution List

Number of questionnaires distributed	Sample population
250	Billings
32 ^a	Bigfork
31 ^a	Columbia Falls
53 ^a	Flathead Lake area
22 ^a	Lakeside
80 ^a	Polson
32 ^a	Whitefish
250	Kalispell
250	Missoula
75 ^b	Flathead Audubon Society
50 ^b	Flathead Wildlife
75 ^b	Polson Outdoors
50 ^b	Western Montana Fish and Game
50	Wild Horse Island Land Owners
325	Big Arm S.R.A. boat launchers
1,625	Total

^aEach city included in total for "Flathead Lake" population sample.

^bEach group included in total for "Organizations" population sample.

Appendix H

SOCIAL DEMOGRAPHIC CHARACTERISTICS OF PUBLIC PREFERENCE SAMPLE

Table 1. Sex of respondents by population, in percent.

Sex	Billings (n = 47)	Flathead Lake (n = 60)	Kalispell (n = 62)	Missoula (n = 75)	Organi- zations (n = 121)	Boat launchers and owners (n = 145)	Total (n = 511)
MALE	68.1	80.0	74.2	84.0	82.6	64.8	75.0
FEMALE	31.9	20.0	25.8	16.0	17.4	35.2	25.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 2. Age of respondents by population, in percent.

Age	Billings (n = 46)	Flathead Lake (n = 60)	Kalispell (n = 61)	Missoula (n = 75)	Organi- zations (n = 119)	Boat launchers and owners (n = 141)	Total (n = 502)
1-19	0.0	0.0	0.0	2.7	.8	2.8	1.4
20-29	15.2	15.0	26.2	30.7	16.0	14.2	18.7
30-39	28.3	23.3	18.0	20.0	27.7	21.3	23.1
40-49	13.0	18.3	13.1	16.0	15.1	19.1	16.3
50-64	28.3	25.0	26.2	20.0	24.4	33.3	26.9
Over 65	15.2	18.3	16.4	10.7	16.0	9.2	13.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Appendix H (continued)

Table 3. Income of respondents by population, in percent.

Income	Billings (n = 44)	Flathead Lake (n = 57)	Kalispell (n = 58)	Missoula (n = 71)	Organi- zations (n = 113)	Boat launchers and owners (n = 138)	Total (n = 481)
Under \$5,000	6.8	10.5	6.9	4.2	1.8	10.1	6.7
\$5,000-\$9,999	13.6	15.8	19.0	15.5	16.8	8.0	13.9
\$10,000-\$14,999	20.5	22.8	29.3	23.9	19.5	20.3	22.0
\$15,000-\$24,999	40.9	35.1	29.3	29.6	38.9	34.8	34.9
\$25,000-\$34,999	11.4	10.5	8.6	18.3	13.3	18.8	14.6
Over \$35,000	6.8	5.3	6.9	8.5	9.7	8.0	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4. Education of respondents by population, in percent.

Education level	Billings (n = 47)	Flathead Lake (n = 59)	Kalispell (n = 60)	Missoula (n = 74)	Organi- zations (n = 119)	Boat launchers and owners (n = 142)	Total (n = 501)
1-8	17.0	8.5	5.0	0.0	3.4	4.9	5.4
9-11	2.1	10.2	3.3	1.4	4.2	7.7	5.2
12	17.0	35.6	25.0	25.7	19.3	24.6	24.2
13-15	21.3	6.8	38.3	16.2	15.1	21.1	19.4
16	25.5	11.9	11.7	18.9	16.8	15.5	16.4
17	17.0	27.1	16.7	37.8	41.2	26.1	29.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 5. Number of years resident of Montana by population, in percent.

Years	Billings (n = 46)	Flathead Lake (n = 60)	Kalispell (n = 62)	Missoula (n = 73)	Organi- zations (n = 120)	Boat launchers and owners (n = 143)	Total (n = 504)
1	2.2	1.7	6.8	1.4	1.7	2.1	2.4
2-5	6.5	10.0	17.7	20.5	19.2	7.0	13.5
6-10	8.7	16.7	8.1	6.8	11.7	9.8	10.3
11-25	34.8	13.3	22.6	24.7	25.0	21.7	23.2
26-98	47.8	58.3	45.2	46.6	42.5	57.3	50.0
Out-of-state	0.0	0.0	0.0	0.0	0.0	2.1	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 6. Occupation of respondent by population, in percent.

Occupation	Billings (n = 43)	Flathead Lake (n = 61)	Kalispell (n = 61)	Missoula (n = 72)	Organi- zations (n = 120)	Boat launchers and owners (n = 143)	Total (n = 500)
Professional	25.6	21.3	19.7	30.6	34.2	28.0	27.8
Management	11.6	18.0	21.3	9.7	18.3	18.2	16.8
Sales	7.0	0.0	3.3	2.8	5.8	2.8	3.6
Clerical	7.0	0.0	1.6	1.4	1.7	1.4	1.8
Craftsmen	11.6	16.4	13.1	15.3	4.2	6.3	9.6
Operatives	0.0	0.0	0.0	0.0	0.0	1.4	0.4
Transport Equip.	2.3	3.3	3.3	5.6	3.3	2.8	3.4
Laborers	0.0	1.6	1.6	4.2	2.5	1.4	2.0
Farmers	0.0	0.0	1.6	0.0	1.7	0.0	0.6
Service Workers	4.7	1.6	3.3	2.8	1.7	4.2	3.0
Household Workers	4.7	4.9	11.5	1.4	5.0	11.9	7.2
Students	2.3	0.0	0.0	8.3	2.5	4.2	3.2
Retired	23.3	27.9	19.7	18.1	19.2	17.5	20.0
Military	0.0	3.3	0.0	0.0	0.0	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Appendix I

PREFERENCES BY POPULATION

Table 1. Transportation preferences by population, in percent.^a

Option	Billings (n = 45)	Flathead Lake (n = 60)	Kalispell (n = 64)	Missoula (n = 75)	Organi- zations (n = 121)	Boat launchers and owners (n = 146)	Total (n = 511)
Leave as is	40.0	51.7	42.2	46.7	59.5	60.3	53.0
Public ferry	26.7	15.0	28.1	29.3	16.5	11.6	19.2
Private ferry	13.3	8.3	10.9	13.3	5.8	4.8	8.2
Bridge	8.9	5.0	6.3	1.3	1.7	3.4	3.7
Roads	0.0	1.7	3.1	1.3	.8	2.1	1.6
O. R. V.	4.4	1.7	1.6	1.3	0.0	0.0	1.0
Trails	37.8	40.0	46.9	42.7	35.5	30.8	37.4
Helicopter	2.2	3.3	4.7	8.0	1.7	2.1	3.3

^aTotals add to more than 100% because respondents could check more than one option.

Appendix I (continued)

Table 2. Facility preferences by population, in percent.^a

Option	Billings (n = 45)	Flathead Lake (n = 60)	Kalispell (n = 63)	Missoula (n = 76)	Organi- zations (n = 121)	Boat launchers and owners (n = 144)	Total (n = 509)
Leave as is	46.7	43.3	31.7	40.8	42.1	38.2	40.1
Public toilet	40.0	48.3	61.9	44.7	47.9	48.6	48.7
Picnic area	24.4	40.0	39.7	35.5	39.7	39.6	37.7
Public beach	17.8	21.7	22.2	22.4	15.7	22.2	20.2
Public dock	11.1	18.3	27.0	17.1	24.8	29.2	23.2
Visitor center	8.9	10.0	11.1	11.8	14.9	7.6	10.8
Observation tower	4.4	11.7	7.9	15.8	9.9	7.6	9.6
Boy Scout camp	11.1	8.3	7.9	9.2	7.4	2.1	6.7
Campground	17.8	11.7	22.2	18.4	14.9	9.0	14.5

^aTotals add to more than 100% because respondents could check more than one option.

Appendix I (continued)

Table 3. Regulation preferences by population, in percent.^a

Option	Billings (n = 45)	Flathead Lake (n = 57)	Kalispell (n = 60)	Missoula (n = 73)	Organi- zations (n = 118)	Boat launchers and owners (n = 144)	Total (n = 497)
Leave as is	48.9	31.6	25.0	35.6	28.8	39.6	34.6
Hunting	4.4	10.5	6.7	8.2	21.2	4.9	10.1
Camping	26.7	19.3	36.7	21.9	18.6	19.4	22.3
Campfires	22.2	17.5	20.0	16.4	16.1	12.5	16.3
Pets	8.9	3.5	5.0	6.8	5.1	4.9	5.4
No hunting	31.1	52.6	51.7	50.7	44.9	45.8	46.5
Close to all	6.7	5.3	3.3	2.7	5.9	2.1	4.0

^aTotals add to more than 100% because respondents could check more than one option.

Appendix I (continued)

Table 4. Wildlife preferences by population, in percent.^a

Option	Billings (n = 44)	Flathead Lake (n = 59)	Kalispell (n = 64)	Missoula (n = 76)	Organi- zations (n = 119)	Boat launchers and owners (n = 144)	Total (n = 506)
Leave as is	70.5	52.5	42.2	56.6	44.5	50.7	51.0
Increase sheep herd	11.4	3.4	10.9	7.9	5.9	4.9	6.7
Decrease sheep herd	2.3	16.9	35.9	14.5	33.6	25.7	24.1
Stock other game	20.5	30.5	29.7	28.9	21.0	29.2	26.7
Remove sheep herd	0.0	3.4	1.6	2.6	1.7	.7	1.6
Other response	4.5	13.6	10.9	7.9	25.2	10.4	13.4

^aTotals add to more than 100% because respondents could check more than one option.

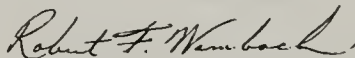
Appendix JSTATE PARK FOR CALENDAR YEAR 1978

By order of the Montana Fish and Game Commission, the following regulations shall govern the use and protection of Wild Horse Island State Park for calendar year 1978:

- (a) No person shall carry or discharge any firearm, fireworks, air or gas weapon or arrow from a bow.
- (b) Pet animals are prohibited from the park.
- (c) No motor vehicle shall be operated on the island unless it is used for emergency fire suppression.
- (d) Overnight camping is prohibited.
- (e) Open fires are prohibited.
- (f) No person shall destroy, deface, injure, remove, or otherwise damage any natural or improved property or shall willfully or negligently cut, destroy, or mutilate any tree, shrub, or plant, or any geological, historical, or archeological feature, but this shall not be interpreted to include flowers, berries, cones, or dead wood.
- (g) No person shall disturb or remove the topsoil cover including, but not limited to, the digging for worms and burying of garbage.
- (h) Livestock grazing is prohibited.
- (i) No person shall dump dead fish or animals or parts thereof, human excrement, refuse, rubbish, or wash water, nor pollute or litter in any other manner. No household or commercial garbage or trash brought in as such from other property shall be disposed of on the park.
- (j) No commercial or political signs shall be posted.
- (k) No person shall use these lands for any commercial purpose.
- (l) Disorderly conduct such as drunkenness, use of vile or profane language, fighting, indecent exposure, or loud or noisy behavior is prohibited; and in addition to any other penalty provided, the participant may be expelled from the area.
- (m) No power boat shall be operated or heached within a designated swimming area, nor shall be operated, with its motor in operation, so that any portion of such boat approaches closer than twenty (20) feet to any swimmer in the water. The term "swimmer" as used herein shall not mean any water skier, then engaged in water skiing and using said boat as a use of towing power. This regulation is applicable only in water areas which are within one hundred (100) feet of the nearest shoreline and shall not apply to emergency or lifesaving situations.
- (n) No operator of a power boat shall tow any water skier so that such water skier is caused to approach within twenty (20) feet of any swimmer in the water. No water skier, while afloat on his water skis, shall approach any swimmer in the water within twenty (20) feet or water ski within the bounds of any designated swimming area.
- (o) No group of more than fifty (50) persons shall use a state-administered recreation area except with prior permission by the director or his agent.

This rule shall be posted at all regional Fish and Game Headquarters and in the area involved. Authority for this rule is found in Sections 26-103.1 and 62-305, R.C.M. 1947.

MONTANA FISH AND GAME COMMISSION



BY: ROBERT F. WAMBACH, SECRETARY
April 27, 1978

PUBLIC USE REGULATIONS FOR WILD HORSE ISLAND

Appendix K

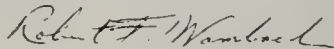
STATE PARK FOR CALENDAR YEAR 1979

By order of the Montana Fish and Game Commission, the following regulations shall govern the use and protection of Wild Horse Island State Park for calendar year 1979:

- (a) No person shall carry or discharge any firearm, fireworks, air or gas weapon or arrow from a bow.
- (b) Pet animals are prohibited from the park.
- (c) No motor vehicle shall be operated on the island unless it is used for emergency fire suppression or for administrative purposes.
- (d) Overnight camping is prohibited.
- (e) Open fires are prohibited.
- (f) No person shall destroy, deface, injure, remove, or otherwise damage any natural or improved property or shall willfully or negligently cut, destroy, or mutilate any tree, shrub, or plant, or any geological, historical, or archeological feature, but this shall not be interpreted to include flowers, berries, cones, or dead wood.
- (g) No person shall disturb or remove the topsoil cover including, but not limited to, the digging for worms and burying of garbage.
- (h) Livestock grazing is prohibited.
- (i) No person shall dump dead fish or animals or parts thereof, human excrement, refuse, rubbish, or wash water, nor pollute or litter in any other manner. No household or commercial garbage or trash brought in as such from other property shall be disposed of on the park.
- (j) No commercial or political signs shall be posted.
- (k) No person shall use these lands for any commercial purpose without written consent of the Director.
- (l) Disorderly conduct such as drunkenness, use of vile or profane language, fighting, indecent exposure, or loud or noisy behavior is prohibited; and in addition to any other penalty provided, the participant may be expelled from the area.
- (m) No power boat shall be operated or beached within a designated swimming area, nor shall be operated, with its motor in operation, so that any portion of such boat approaches closer than twenty (20) feet to any swimmer in the water. The term "swimmer" as used herein shall not mean any water skier, then engaged in water skiing and using said boat as a use of towing power. This regulation is applicable only in water areas which are within one hundred (100) feet of the nearest shoreline and shall not apply to emergency or lifesaving situations.
- (n) No operator of a power boat shall tow any water skier so that such water skier is caused to approach within twenty (20) feet of any swimmer in the water. No water skier, while afloat on his water skis, shall approach any swimmer in the water within twenty (20) feet or water ski within the bounds of any designated swimming area.
- (o) No group of more than thirty (30) persons shall use a state-administered recreation area except with prior permission by the director or his agent.

This rule shall be posted at all regional Fish and Game Headquarters and in the area involved. Authority for this rule is found in Sections 26-103.1 and 62-305, R.C.M. 1947.

MONTANA FISH AND GAME COMMISSION



BY: ROBERT F. WAMBACH, SECRETARY
November 28, 1978

Appendix L

REVENUE SOURCES SUPPORTING STATE PARKS

C = Revenue sources that are used for capital investment

O & M = Revenue sources that are used for operation and maintenance

TITLE	SOURCE
C,O&M - Coal Severance Tax	A portion of the tax on coal extraction is distributed by formula to the state parks program. Use of this money is limited to acquisition of and improvements at state parks, and operation of sites acquired with coal tax funds.
C,O&M - Federal & Private Revenue	This money usually comes from federal cost sharing of various projects, but also includes earnings and donations from private sources.
C,O&M - Fish & Game Earned Revenue	The state park system receives appropriations from revenues collected from the sale of sportsmen's licenses. This money is used to acquire, develop and care for sites which directly benefit sportsmen.
O&M - General Fund	State general tax revenue derived from individual and corporate income and property taxes and from interest derived from investments. This money may be used in support of any legitimate park activity.
C - Long-Range Building Fund	A fund which receives revenues from the state cigarette tax and the interest it accrues.
C, O&M - Motorboat Fuel Tax	A portion of Montana's gasoline distributors' tax is specifically set aside for the acquisition, development and maintenance of state recreation sites where motorboating takes place.
O&M - Parks Earned Revenue	The state park system earns revenue from entrance fees collected at Lewis & Clark Caverns, overnight and seasonal camping fees, cabin site rentals, concessionaire agreements and other incidental activities taking place upon park system lands. This money may be used in support of any legitimate park activity.
C, O&M - Snowmobile Fuel Tax	A portion of Montana's gasoline distributors' tax is set aside for the development and maintenance of snowmobile recreation facilities and law enforcement.
C, O&M - Snowmobile Registration Revenues	Resident snowmobile owners are required to register their machines and to purchase a "tax paid decal." Unregistered non-resident snowmobilers must display a temporary permit. This money is used for development and maintenance of snowmobile facilities as well as law enforcement.

— Cut along this line —

This page is for you to let us know your comments regarding the management of Wild Horse Island State Park.

The following is what I liked about the plan:

The following is what I disliked about the plan:

Other comments:



BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

— POSTAGE WILL BE PAID BY —

**MONTANA DEPARTMENT OF FISH AND GAME
HELENA, MONTANA 59601**

Use This Envelope to Return Questionnaire Only

FIRST CLASS
PERMIT NO. 112
Helena, Montana

Name

Address

Tear out and mail in attached envelope to Mr. Ron Holliday, Administrator, Parks Division, Department of Fish and Game, Capitol Station, Helena, Montana 59601.



**prepared by
Parks Division
Montana Dept. of Fish and Game**